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Published at Chapel Hill, N. C.

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The SOUTHERN ECONOMIC JOURNAL

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FORESTS IN THE ECONOMY OF THE SOUTH

E. L. DEMMON

Southern Forest Experiment Station

Cotton and corn, lumber and naval stores—these four products have been the foundation of the economy of the South for several generations. In a large part of the South, they still provide the major share of the annual income. It is my purpose to point out briefly the part played in the general economy by the forests of the South, and the opportunity they offer to bring about a greater measure of prosperity to this section of the country.

I

Viewed from the angle of land area involved, the forest economy of the South ranks above the agricultural. The Southern Forest Experiment Station, a regional forest research unit of the United States Forest Service, has recently completed a field inventory of the forest resources on an area of 216 million acres. If those portions of South Carolina and Arkansas not covered by the survey are included, the gross land area amounts to nearly 237 million acres. Of this latter area, 60 per cent, or slightly more than 140 million acres, is forest land. The data are not yet available as to how much timber is standing on this vast area, but we know that it represents a resource of immense value. Furthermore, it is a resource that, under good management, will renew itself and indeed is capable of yielding greater volumes of forest products in the future than it has in the past. Any general study of the economy of the South cannot overlook the part which this forest empire can and should play. As a matter of fact, the total value of the

forest land, timber, and utilization plants in the South is conservatively estimated to be nearly two billion dollars.

As a source of tax revenue, the South's forest land and timber are estimated to make up nearly 10 per cent of the assessed valuation of *all* property—real and personal, rural and urban—in the nine Southern states from South Carolina to Oklahoma and Texas.[1] We estimate that this forest land was assessed in 1935 at about $450,000,000, or the equivalent of $3.21 per acre. Unfortunately, however, not all this assessment yields a tax revenue, owing to widespread tax delinquency which has resulted in the nominal forfeiture for unpaid taxes of some seventeen million acres of forest land, out of a total of over thirty-one million acres of all delinquent lands in this region.

Measured by value of products, Southern forest industries rank high. According to the latest United States Census figures (1933), the value of all products derived from Southern forests including lumber and timber, cooperage, wooden boxes, naval stores, wood distillates, charcoal, pulpwood, etc., amounted to $185,000,000, or 8 per cent of the value of all manufactured products of this region. The value of forest products for the years since the last census figures were taken will show a substantial increase. Only as recently as 1929, the value of manufactured forest products in these nine states totaled approximately $600,000,000.

The labor requirements of the forest industries have, of course, declined somewhat with the falling off in production during the recent depression. Nevertheless, in 1934, the production of commercial forest products in the part of this region recently covered by our forest survey (216 million acres) required the equivalent of full-time labor of about 122,000 men in the woods and 87,000 men in the plants, or a total of 209,000 men. The actual number of individuals employed was considerably more than this number, as many are employed only part time in these industries. Assuming four persons to a family, there were the equivalent of about 836,000 persons directly dependent on the forest industries in these states during 1934. These figures refer only to labor requirements for

[1] In this discussion, the nine Southern states referred to include South Carolina, Florida, Georgia, Alabama, Mississippi, Louisiana, Arkansas, eastern Texas, and southeastern Oklahoma (timbered portions of latter two states).

commercial products derived directly from the forest. In addition, it is estimated that the equivalent of full-time labor for 150,000 men is required annually in producing fuelwood, fence posts, and other products used on farms, obtained by farmers from their own woodlands. The distribution of the commercial labor among the major forest industries is shown in Table I.

TABLE I

ESTIMATED FULL-TIME LABOR REQUIREMENTS OF FOREST INDUSTRIES IN ALL OR PORTIONS OF EIGHT SOUTHERN STATES, 1934*

COMMERCIAL PRODUCTS	NUMBER OF FULL-TIME LABORERS			MAN-DAYS LABOR PER UNIT OF PRODUCT	
	Woods	Mill	Total	Man-days	Unit
Lumber	33,220	59,230	92,450	3.00	MBF Int. ¼″
Naval stores	43,120	2,600	45,720	660.00	Crop 10,000 faces
Cross ties	11,453	.....	11,453	0.14	Tie
Poles and piling[a]	1,548	.....	1,548	0.176	Piece
Veneer	4,612	4,828	9,440	3.68	MBF Int. ¼″
Cooperage	2,917	3,877	6,794	3.64	MBF Int. ¼″
Pulpwood	7,761	10,435	18,196	3.22	Cords
Treating plants	.....	3,155	3,155	19.00	M cu. ft.
Miscellaneous	1,842	2,514	4,356	6.58	MBF Int. ¼″
Fuelwood[b]	15,932	.....	15,932	1.52	Cord
Total commercial	122,405	86,639	209,044		

* Includes Alabama, Florida, Georgia, Louisiana, Mississippi, southeastern South Carolina, eastern and southern Arkansas, and east Texas. Based on 200 working days per year, the average for these industries.

[a] Includes some commercial fence posts.

[b] In addition to this item, the labor used in cutting fuelwood and other forest products used on the farm is equivalent to full-time employment for approximately 150,000 men.

Comparing forest products industries with all other industries, the most recent census figures (1933) indicate that the forest industries employed 22 per cent of all industrial wage-earners in these nine states, and paid 14 per cent of all industrial wages.

II

It has been prophesied—we foresters have said it ourselves at various times in the past—that within ten or twenty years, or some similarly brief period, most of the commercial timber in the South would be gone, thus forecasting the ultimate death of the indus-

tries dependent upon it. That statement has been true for certain limited areas, but fortunately it does *not* hold for the South as a whole. The prophesies did not take into account the marvelous recuperative timber-growing powers of our Southern cut-over forest lands, influenced as they are by soil and climatic conditions exceptionally favorable to forest growth. Illustrations can be found, of course, of devastated Southern forest lands, of ghost towns resulting from the abandonment of the large lumber mills. These ghost towns stand as monuments to overcapitalization of timber holdings, to rapid liquidation of timber assets, and to lack of responsibility of stewardship over this great natural resource. But Nature has been very kind to the South, and over great areas is now producing for us and for our children a new crop of timber which, properly managed, will support *most* of our present forest industries, and many new units, *in perpetuity*.

Let me elaborate briefly on some of these future possibilities, particularly for the gum naval-stores industry and for the recently expanding pulp and paper industry.

The United States for more than a century has been the world's largest producer of turpentine and rosin. This naval-stores industry in normal years represents an annual output of approximately $50,000,000 worth of products. It is of basic importance to the nation, as its products are made use of in the manufacture of paint, varnish, linoleum, paper, soap, ink, grease, synthetic camphor, and many other articles. A recent Forest Service survey shows that the naval-stores belt embraces an area of approximately thirty-four million acres of land on which longleaf and slash pines predominate. These two native species of pine are the only trees of importance in the commercial production of naval stores in this country. From this area comes all of the gum turpentine and rosin produced in the United States, and a large part (68.5 per cent in 1930–31) of the entire world's production of these commodities. About one-half of the United States naval-stores production is exported.

In this naval-stores belt, our recent survey reveals that there are approximately 1800 million longleaf and slash pine trees two inches or more in diameter which have not been worked for naval stores. Most of these are under six inches in diameter (1,225 million trees).

It is calculated, however, that sufficient trees will reach turpentining size (eight to nine inches in diameter) each year to permit twenty-four million new trees to be brought into turpentining annually. This annual increase offers a fair index of the sustained-yield possibility of this region for naval stores. In order to obtain continuous production of naval stores, it is necessary to add to the body of working trees each year a sufficient number of new faces (the chipped areas on the trees, from which the gum flows) on round (unturpentined) trees to offset the shrinkage due to mortality and the abandonment of worked-out trees. In the naval-stores belt as a whole, the ratio that this annual replacement bears to the total working body of faces approximates 1 to $8\frac{1}{3}$. Applying this ratio to the indicated annual income of twenty-four million new faces on fresh trees, it is estimated that a working body of 200 million faces (20,000 crops of 10,000 faces each) can be maintained in *continuous* production. Such an operation would, at current average yields, produce 800,000 units[2] of naval stores as contrasted with the present average production of 500,000 units. Expressed in more common terms, it is possible to *increase* the annual production of gum turpentine by 300,000 barrels, and the annual production of gum rosin by one million round barrels.

This rough appraisal of the future possibilities in the naval-stores industry is based upon a consideration of the naval-stores belt as a whole and on the assumption that all longleaf and slash pine trees would be worked for turpentine before cutting them for any other use. If any considerable number of trees were kept unturpentined, to be made into poles, piling, lumber, or ties, potential naval-stores production would be correspondingly reduced.

Serious indeed is the implication in these figures on potential naval-stores production. The naval-stores industry today could follow no surer and speedier road to bankruptcy than to produce 800,000 units a year. For the past several years, consumption has barely kept up with production, and each year the carry-over has increased. Financial distress in the industry has been acute. Hence, while the South's forest resources would permit a considerable expansion in this industry, such development should await

[2] One unit of naval stores equals one fifty-gallon barrel of turpentine and three and one-third 500-pound (gross) barrels of rosin.

vastly improved demand by present consumers, and the development of new uses and new markets. Meanwhile, under the Agricultural Conservation Program, the naval-stores operators are retracting rather than expanding. Over fourteen million turpentine faces were taken out of production after this program was initiated in July, 1936, in an effort to reduce anticipated overproduction.

Within recent years, increasing attention has been given to the possibilities of expanding the pulp and paper industry in the South. At present the South dominates the field in the production of pulpwood where the sulphate process is used, the principal products being brown Kraft wrapping paper, bags, and boxboards. In 1934, the South produced 756,000 cords of pulpwood. There were sixteen pulp mills in this territory at that time, with a daily capacity of about 3,400 tons of Kraft.

Within the past year, several new pulp and paper mills have been under construction in the South, and the total capacity of these mills, with others that have been announced but on which construction is not yet under way, amounts to over 3,600 tons of pulp daily, and the investment in new plants comes to about $65,000,000. These mills are designed primarily to produce Kraft paper, although at least two of them will produce bleached sulphate which will go into high-quality white paper. As yet, no Southern mill has been erected for the production of newsprint. What does the development of this new industry mean in respect to the future of our Southern forests?

Approximately 55 per cent of our domestic pulp and paper needs are now imported, chiefly from Canada and the Scandinavian countries, costing us over $150,000,000 annually. The present annual consumption of pulpwood or pulpwood equivalents in the United States is approximately fourteen million cords. A possible total future national requirement of twenty-five million cords annually can be used as a basis for estimating the contribution which the different forest sections of the United States can make in supplying this need, and still conserve the nation's forests.

Assuming complete dependence on domestic supplies to fill national requirements, a recent Forest Service report indicated that the South could be expected to supply seven and one-half million

(30 per cent) of the twenty-five million cords required in the future, or more than any other single forest region of the country, including Alaska. It is further estimated on the same basis that the South can provide two million (30 per cent) of the 6.6 million cords of newsprint required, two million (17 per cent) of the 11.9 million cords of mechanical and sulphite pulp, 3.2 million (64 per cent) of the five million cords of sulphate pulp, and 0.3 million (20 per cent) of the 1.5 million cords of soda pulp. This estimate for the South is based on the assumption that the present installed production capacity for each process (chiefly sulphate in the South at present) would be maintained. Beyond this limit, prospective production was distributed with regard to relative accessibility, quantity of standing timber, current and theoretical future annual growth, suitability of species for the various processes of manufacture, and other pertinent factors. Those familiar with the pulp and paper possibilities in the South feel that this estimate is very conservative, especially in view of recent developments in chemical processes in the manufacture of newsprint from Southern pines.

Among the factors which should be considered in the location of pulp mills are: (1) availability of an ample and continuous supply of good-quality pulping cordwood; (2) labor supply (of which the South has an abundance at low cost); (3) power and fuel (also cheap and abundant); (4) water; (5) chemical supplies; (6) transportation facilities; (7) proximity to markets; and (8) taxes, etc. An advantage which the South has is low transportation costs from woods to mill and from mill to market. In 1928, the average cost in the United States of transporting a cord of pulpwood from forest to mill was $3.23; in the South it averaged $2.00 a cord. Low water rates on pulp from Southern ports to New York and other Northern centers, coupled with low production costs, permit the Southern pulp manufacturer to deliver his product to these consuming centers at extremely low prices compared with those for pulp from other regions.

Since wood is the most important single item of pulp cost, the South, because of its present and potential supply of timber, is particularly well situated to attract the newsprint and other paper industries. Studies made of available cordwood volume in pulp-

ing species in seven specific areas in the South most advantageously located for production of wood pulp indicate that on the forty-six and one-half million acres of forest land in these areas, there are now standing 290 million cords of wood suitable for manufacture into pulp. This includes the volume in all trees over five inches in diameter at breast height which are of pulping species, and hence does not represent the volume now actually available for conversion into pulp. Inasmuch, however, as the area involved is only about one-third of the forest area of these nine States, we can safely assume that the South has immediately available for conversion at least 250 million cords, making due allowance for the demands of other wood-using industries. Furthermore, our studies indicate that, averaging all forest land together, irrespective of stocking, the annual growth is at least one-third cord per acre per year. Hence, on our 140 million acres of forest land there are now being produced forty-seven million cords annually. Approximately three-fourths of this growth is in pulping species, or a total of approximately thirty-five million cords. Under intensive forest management and on the better forest sites, an average growth of one cord or more per acre per year can be expected. There should be no difficulty in supplying pulpwood of suitable size and quality for many paper products, from any one of a great many localities in the South. Abundant low-priced raw materials, rapid tree growth, easy logging conditions, an ample supply of good water, low labor costs, and favorable freight differentials to Northern markets, form a combination of favorable factors assuring that the South will play a prominent rôle in supplying the United States with a large proportion of its future paper requirements.

Although the prospects of a successful expansion of the pulp and paper industry in the South are full of promise, certain precautions must be observed if this expansion is to be permanent.

In our opinion the following policies should govern this expansion:

1. There should be no greater installation of paper mills than the South can support from timber not needed for other forest-using industries.

2. Insofar as economic circumstances will permit, new pulp mills

should be fairly well distributed throughout the region and not concentrated in restricted localities.

3. Each plant should be planned for permanency, and should utilize the timber in its territory on a sustained-yield basis with full regard for the needs of other wood-using industries, intergrating the production of pulpwood with other forest products of greater unit value.

In the lumber industry, the picture is somewhat different, although by no means as dark as was predicted a few years ago. It is true that most of the old-growth pine and hardwood has been converted into lumber and other forest products. The harvesting of this original timber crop was an important step in the progress of the settlement of the nation. In many cases, the method of that conversion was destructive and wasteful, although not all of the blame is to be laid at the door of the lumber industry. Nevertheless, on most of the cut-over forest lands in the South today is a second-growth stand of timber which, *if properly managed*, will support a large forest industry forever. The character of the forest industries in the future, however, will not be the same as in the past. The day of the big mills, with daily capacities of 80,000 or more board feet, is already rapidly drawing to a close. Their place is being taken by smaller mills having a daily capacity of 40,000 feet or less. There are exceptions to this trend, of course, particularly in the more favorable timber-growing locations in the South. Here large mills can be operated indefinitely, if sustained-yield forestry is practiced. Many operations will undoubtedly be placed on this basis as soon as the financial opportunities become more evident.

III

In addition to the *industrial* use of the forest there are other important uses. In the past, little attention has been paid by Southern farmers to the values inherent in their farm woodlands. To be sure, several million dollars' worth of forest products are cut each year from these woodlands, some of which are sold and others used at home or in interfarm trade. Today more than half of all land in farms in the South is in woodland, exceeding by five million acres the total area in croplands. Very little attention,

on the whole, however, has been given to conserving the forest values through judicious management of these farm woodlands. Naturally farmers cannot carry on work in the woods the year round, but they can add considerably to present and future farm incomes by taking a few simple measures, i.e., protecting their woods against fire, erosion, and overgrazing, by cutting their fuelwood from overmature, suppressed, and defective trees, by thinning young stands to promote more rapid growth of desirable trees, and by "shopping around" to get the best prices for their stumpage or for forest products they have cut themselves.

In yet another field, forests play an important rôle in the economy of the South. Their part in conserving soil, in preventing erosion, and in ameliorating flood conditions is not always recognized. The Southern Forest Experiment Station is conducting intensive field research in vegetative control of erosion, and on the effect of forest and other plant cover on run-off of rain water. Our studies thus far indicate that forests do have an important regulatory influence on streamflow and ground water, and serve effectively to prevent soil wastage and flood damage.

The range livestock industry offers another example of the opportunity of using forest lands for purposes other than the production of timber. Most of the South's forest land provides some grazing for livestock. This industry contributes an important share of the income and subsistence of Southern farmers. It falls far short, however, of supplying local market needs. Climatic and soil conditions are favorable to a marked expansion in the livestock industry on Southern forest ranges.

Forests are destined to become even more important in the future for recreation and the production of game. There is a marked trend toward the setting up by public agencies of game refuges and breeding grounds for wild life, where game will be produced under scientific management, and hunting permits will be issued to sportsmen at periodic intervals. On one National Forest in the South, where 1,700 hunters were allowed in order to reduce the game population, more than 3,000 applications at $5.00 apiece were received.

IV

To conclude and summarize: Private forestry can be practiced and be made to pay. One of the surest means of insuring a profit from forest lands is to make them serve a multiple use. One of the primary requisites is that *only* the annual production or "interest" be removed each year and that the capital stock or "principal" be conserved. On the National Forests, "multiple-use forestry" is the accepted policy of management. If we are to have sustained-yield *private* forestry, it also must take into account such a policy of management.

To illustrate, assume a 50,000-acre forest in south Georgia, fairly well stocked with second-growth longleaf and slash pines, typical of many such areas to be found there. The first task under a well-organized forest-management program is to insure adequate protection against uncontrolled fires. Such protection can usually be arranged in cooperation with the state forestry organization and with neighboring forest-land owners. An inventory of the timber resources and a determination of the growth rate is necessary. Certain trees can then be selected as best suited for a final crop of high-grade sawlogs. These trees would be reserved for this purpose, and the future management of the forest would be designed to produce in them the very highest quality of lumber. A portion of the remaining stand could then be turpentined conservatively, leaving the trees under nine inches in diameter for future working, unless it may be desirable to remove some of the smaller trees to favor the growth of the better trees. Such thinnings would improve the growth and quality of the remaining stand, and could find a ready market at the nearest pulp mill. Certain other trees, if of suitable size and quality, could be cut for poles, piling, and railroad ties, and their tops and limbwood go into pulpwood. Game could be introduced into the area and could be increased with proper management, the annual production of game being taken off by leasing the hunting privileges. Some grazing could also be taken care of, if it did not interfere with the primary purpose of producing timber. This offers an example of multiple-use, sustained-yield forestry where lumber, naval stores, pulpwood, poles, ties, livestock, and game are being produced on

a permanent, continuous basis. The annual yield per acre from all these products, assuming intensive and efficient management, should return a substantial profit on the original investment.

That is the picture, multiplied many times over, that we have in mind for the forests of the South. Its consummation will bring about permanent employment of labor, permanent industries, permanent communities, more prosperous railroads and other utilities, stable and broad tax bases, and a better standard of living for this section of the country. It is estimated that our Southern forests can supply direct, permanent employment at living wages to at least 500,000 workers, thereby providing a living to two million people. This presents a different picture from the one of forest exploitation and community abandonment that has been so common in the past. It may not be too much to say that the wise development and use of her forest resources is the key to the economic and social betterment of the South. Many public agencies, including the state forestry organizations and the United States Forest Service, are working to promote a fuller use of the South's forest resources, much of which is now but partially utilized. The final result is largely up to the private owners in whose hands over 90 per cent of these forest lands are held. The opportunities should well repay their best efforts.

THE RUST COTTON PICKER

RALPH C. HON

Southwestern

I

The economic structure of the South is built around the production and distribution of cotton. Low Southern wages and incomes, which have for a long time averaged about one-third lower than those enjoyed in other sections of the country, seem to be closely related to the low income-yielding capacity of King Cotton. The value of farm products per person engaged in farming in the Cotton Belt is only about 40 per cent as great as that for farmers in the Corn Belt.[1]

The ten principal cotton-producing states contain only 22 per cent of the nation's total population but 44 per cent of the rural population lives within their boundaries. During the ten years 1924–1933, the farmers of these states received 38 per cent of their gross[2] income from cotton and cottonseed.[3] The farmers of Mississippi, Texas, Arkansas, and Alabama received respectively 52 per cent, 47 per cent, 45 per cent, and 43 per cent of their gross income from these products.

Cotton, as a source of cash income, is even more important to the farmers of this area. It accounted for 49 per cent of the farmers' cash income in the ten states; for 67 per cent in Mississippi, 62 per cent in Alabama, 60 per cent in Arkansas, and 55 per cent in Texas. Large parts of Texas are much more dependent upon cotton than the figures for the entire state indicate.

The dominant position that cotton occupies in the Southern states indicates that it has a strong comparative advantage relative to live stock and other crops. Greater diversification is undoubt-

[1] U. S. Department of Agriculture, *Regional Problems in Agricultural Adjustment*, p. 41.

[2] This figure includes an estimate of the value of products used on the farms.

[3] Bureau of Agricultural Economics, *The World Cotton Situation, Part 2 (Preliminary)*, p. 56.

edly desirable, but there is no cash crop that can be profitably substituted for cotton over wide areas. Studies of the Bureau of Agricultural Economics indicate that the average per hour return to labor engaged in the production of cotton in the ten cotton states during the ten-year period ending in 1932 was 15.9 cents, compared with 5.4 cents in the production of corn, 4.3 cents in the production of oats, and 3.5 cents in the production of wheat in the same area.[4] Tobacco yielded a return of 17.4 cents per hour; but the market for tobacco is not large enough to permit an appreciable shift from cotton without materially reducing tobacco prices.

The greater part of the Cotton Belt is at a comparative disadvantage in the production of grain, forage, and live stock. Corn is second in importance to cotton in the South. During the ten years 1923–1932 the average acreage devoted to this crop in the cotton states was 26.8 per cent of the total crop acreage.[5] The average yield per acre in these years was 10.7 bushels in Georgia, 13 bushels in Alabama, 13.6 bushels in South Carolina, 14.6 bushels in Louisiana, 14.8 bushels in Mississippi, 16.3 bushels in Arkansas, 16.7 bushels in Oklahoma, and 16.9 bushels in Texas. Pennsylvania had, in contrast, a yield of 39.2 bushels per acre, Iowa 37.8 bushels, and Ohio and Illinois 36 bushels.[6]

Returns on live stock are low in many parts of the South, largely because of the low average feed yields and low carrying capacity of pastures. Milk production per cow is lower in the South than in any other section of the country. In 1935 the production per cow was 1,810 pounds in Louisiana, 2,360 pounds in Mississippi, 2,730 pounds in Arkansas, 2,820 pounds in Georgia, 2,930 pounds in Alabama, 3,050 pounds in Texas, and 3,110 pounds in Tennessee. The cows of Wisconsin, the leading dairy state of the nation, averaged 5,380 pounds and were surpassed by those of important dairy states such as New York with 5,477 pounds, Washington with 5,850 pounds, and California with 6,580 pounds.[7]

[4] *Ibid.*, p. 59.
[5] *Ibid.*, p. 59.
[6] *Agricultural Statistics*, 1936, p. 34.
[7] *Ibid.*, p. 259.

II

It is clear that adequate living standards for the farm people of the South are dependent upon more efficient production of cotton. During the ten years ending in 1932 the average quantity of labor required per acre for growing, harvesting, and marketing cotton in the ten states was 85 hours[8] and the average yield per acre throughout the cotton-growing regions of the United States during this period was only 169.9 pounds. Cotton growing has continued to operate with primitive manual methods in competition with a world geared to the efficiency of the machine age. The result is that the workers on the cotton farms of the South are at the very bottom of the American labor pyramid. Secretary Wallace recently stated that he had "never seen among the peasantry of Europe poverty so abject as that which exists in this favorable cotton year in the great cotton States from Arkansas on to the East Coast."[9] The impossibility, under present conditions, of cotton producers attaining a satisfactory standard of living is indicated by simple arithmetic. It takes an average worker approximately ten days to pick enough seed cotton to make a bale of ginned cotton which, at 12 cents a pound, is worth about $60. If the worker received the entire proceeds from the sale of the lint, simply for picking the cotton, his compensation would therefore be only about $6.00 a day, a wage that is not regarded as unusual in the leading industries of the United States. Cotton must be produced with less labor if the South is to be admitted to the Union economically.

Labor-saving devices have been developed for all the operations involved in the production of cotton except harvesting, with the result that this operation is the bottle neck of the entire realm of King Cotton. As the Rust brothers express it, "Up to the present time, a successful cotton picker has been a missing link in our machine age." Hand labor is making its last great stand in the field of cotton picking. Here we have the greatest single source of child and woman labor in America. Plantation owners have found it necessary to keep more tenants than are needed for cotton

[8] Bureau of Agricultural Economics, *op. cit.*, p. 59.
[9] *The New York Times Magazine*, January 3, 1937.

production in order to have them available during the picking season. This has retarded mechanization in general. If and when mechanical picking becomes practicable, hand labor will be reduced in production operations far beyond the part contributed directly by the picker itself.

The arrival of mechanical cotton picking would be a long step in a process that began with the invention of the cotton gin in 1793. This is, in turn, merely part of the general scheme of mechanization and improved efficiency which has made possible broader use of goods and services.

The objection is inevitably raised that a successful cotton picker would greatly intensify the problem of unemployment. True, there would be a reduction in the man-power needed in cotton fields, but a drastic reduction in our Southern farm population is essential to acceptable living standards. There would certainly be a serious problem of readjustment and a tenant driven from the land would derive little comfort from being told that Southern agriculture had taken a step forward. However, cotton farmers could not be expected to deny themselves the advantages of mechanization in order to keep a surplus population on the farms. The mechanical cotton picker is needed as are all other devices that shorten hours of labor and increase productivity. To attempt to solve the problem by scrapping or outlawing the machine would be to accept a defeatist attitude. A more constructive solution would be for society to accept a responsibility to the displaced workers. It is well to remember that it was Eli Whitney's cotton gin which made the wide-spread cultivation of cotton possible.

A successful cotton picker has been just around the corner for the last eighty-seven years. S. S. Rembert and J. Prescott, of Memphis, received the first patent on a mechanical cotton picker, September 10, 1850.[10] Since that time almost every conceivable kind of mechanical device for the harvesting of cotton has been patented. Within the last ten years 175 patents of this type have been granted. According to the Agricultural Editor of the *Dallas News*[11] a hue and cry is raised about every ten years that the Southern farmer is threatened with a great sociological crisis

[10] Texas Agricultural Experiment Station, *Bulletin No. 452.*

[11] Victor H. Schoffelmayer, *Dallas News*, September 5, 1936.

because of a successful mechanical picker that is ready to sweep the Cotton Belt.

Several mechanical harvesters were demonstrated during 1936, but the Rust picker is the one on which major attention has been focused. A scientist of Harvard University states that "No newly invented machine has created more of a furore than the mechanical cotton picker devised by the Rust brothers."[12] Published opinions in regard to this machine have been amazingly voluminous and surprisingly contradictory. Professor Broadus Mitchell expects it to revolutionize the cotton economy, make unemployment on a scale unheard of before, break banks, and batter insurance companies holding farm mortgages. In his opinion "What is going on in that little machine shop in Memphis is of equal moment with what occurred in Crompton's attic or in the basement of the Nathaniel Greene plantation house where Eli Whitney worked with rollers and wires."[13] So important does Professor Mitchell consider the picker that he takes Dr. Odum to task for not giving the machine more consideration in *Southern Regions of the United States*.[14]

On the contrary, Dr. Tait Butler, after analyzing the mechanical and economic problems faced by the picker concludes that "all the sensational publicity given the mechanical cotton harvester, all these predictions that the present cotton harvester, and probably any which will be developed in the near future, will create a revolution in cotton production, or create any serious labor and social disturbance, are newspaper bunk."[15]

III

The Rust cotton picker can be operated with any standard make of row-crop tractor. It is built on a light steel chassis that runs on pneumatic rubber-tired wheels. As it moves over the row of cotton the plants enter a tunnel where they come into contact with a large number of smooth steel spindles around which the lint becomes attached. These spindles, which are simple smooth steel rods about eight inches long and one-sixth inch in diameter, project from a broad endless belt which contains sixteen rows of the

[12] Dr. Loring B. Andrews in a radio address, November 22, 1936.
[13] *Southern Economic Journal*, October 1936, p. 146.
[14] *American Economic Review*, December 1936, p. 735.
[15] Editorial in *Progressive Farmer, Mississippi Valley Edition*, November, 1936.

spindles that start close enough to the ground to come into contact with the lowest bolls and range upward to the highest. This broad belt moves along one side of the tunnel in the opposite direction from the travel of the machine at a speed approximately equal to the forward motion of the machine. This allows the spindles to remain in a position approximately stationary with relation to the cotton, thereby avoiding damage to the plants. Prior to their moving into the tunnel the spindles are automatically moistened as they pass through a rubber and sponge device kept constantly wet from a water tank above. The moisture on the spindle is a unique feature of the Rust picker. It causes the open cotton to cling to the rapidly revolving spindles. While in the tunnel the plants are compressed so that the spindles can project through the whole plant. The fact that the spindles are smooth makes it easier to remove the cotton from them. This is accomplished by stripper bars spaced just far enough apart to allow the spindles, but not the cotton, to pass through them. The cotton is then blown through a pipe into a large container.

John Rust, the elder of the two brothers, made his first sketch of a mechanical picker in 1924. Mack Rust joined him in the summer of 1928, after having graduated from the Engineering School of the University of Texas, done a year's graduate work there in electrical engineering, and spent two years with the General Electric Company.

What is probably the first article written about the Rust picker appeared in the *Weatherford Herald* (Texas), July 19, 1928. It prophesied that the picker could save enough for its owner in ten days' work to pay for itself. The first public demonstration of the machine was made on the Lone Star Seed Farm near Waco, Texas, in October, 1931. Representatives of Texas A. and M. College and about seventy-five farmers were present. In April, 1934, the Rusts announced that they had selected a location in Memphis as their headquarters at which the machines would be partially manufactured, assembled, and sold.

Nine machines were completed and in readiness for the 1936 picking season. Four were used at Clover Hill, the John T. Fargason plantation near Clarksdale, Mississippi. Two were sold to the Soviet government. One was used for a while in southern

Missouri and later in the vicinity of Shreveport, Louisiana. One was kept in the shop at Memphis, and one was turned over to the Delta Experiment Station at Stoneville, Mississippi, for a series of scientific tests.

The Rust brothers have a keen sense of social responsibility and their determination to soften the possible economic effects of their invention has attracted national attention. They have been hailed as a "new breed of men in American industrial life."[16] They believe "that some form of cooperative commonwealth is bound to supplant our decaying capitalistic society" and they expect our major economic problems to be solved through "the introduction of a planned economy of abundance, based on production for use, wherein at least our credit and basic industries are socialized."[17]

The Rust Cotton Picker Company has been set up in such a way that the outstanding shares of stock will be divided equally between the inventors and investors, whether the paid-in capital is great or small. The Rust brothers royalty agreement with the company stipulates that they are entitled to one hundred dollars on each machine manufactured. These royalty rights may be converted into the company's stock at the rate of 2 per cent of royalty rights for 1 per cent of the authorized stock, provided the number of shares so issued to Rust brothers shall not exceed the number issued to investors. When half the authorized stock is sold the Rust brothers will therefore hold the other half but will no longer be entitled to any royalty.

The Rust brothers state that a non-profit educational institution, The Rust Foundation, will be established and endowed with the patents on the cotton picker and all the stock in the company held by them. Under this plan, the Rust brothers and one other person would be the managing trustees of the foundation. In this way the Rust brothers would control the company through the foundation. Their only pecuniary compensation from the machine would be their salaries as executives, which they propose to limit to ten times the compensation of the lowest paid employee of the foundation or any organization under the control of the foundation.

[16] *Judge*, May, 1936.

[17] Mimeographed statement by John and Mack Rust on *The Cotton Picker and Unemployment*.

IV

There seems to be little question that the Rust brothers have accomplished more than any of their predecessors toward the development of a successful cotton picker. But, if it is to serve its purpose satisfactorily, the machine must have almost human attributes. The cotton plant has many long lateral branches and the bolls are scattered throughout from top to bottom. The bolls near the bottom of the plant open first while the plant is still green and blooming. This is the best cotton and must be picked shortly after it opens to avoid deterioration from exposure to the weather. When carefully hand-picked there is scarcely any trash in this first picking. A handicap of the mechanical picker is that it gathers a few green leaves which give a slight stain to the lint. Other bolls continue to open over a period of approximately three months until frost. These are harvested during the second and third pickings and contain many dry leaves. The third harvesting often takes place after a killing frost and is accomplished by snapping the bolls rather than picking the staple from them. Cotton picked by the Rust machine during the latter part of the 1936 season is reported to be quite comparable to hand-picked cotton.[18] Tremendous progress has been made in recent years in the development of cleaning apparatus, but there is no machinery yet available that will entirely remove this material from the cotton lint. After several years of experimentation through hybridization and selection, the Texas Agricultural Experiment Station reports satisfactory progress in developing "higher yielding strains of cotton of a type that may be mechanically harvested and cleaned more satisfactorily than ordinary varieties."[19]

Another factor that complicates the acceptance of the picker is the presence of widely different conditions, both physical and economic, in the Cotton Belt. In order to analyze the region satisfactorily the Department of Agriculture found it necessary to divide the area into seventeen subregions.[20] The main sources of field motive power throughout the South are horses and mules, but the use of tractors has been making moderately rapid strides in

[18] Conversation with John T. Fargason.

[19] *Bulletin No. 511.*

[20] *Regional Problems in Agriculture Adjustment.*

the western part of the Cotton Belt. The Upper Piedmont of South Carolina and the High Plains area of Texas afford an enlightening contrast.[21]

In the Piedmont area, which in many ways is typical of the eastern Cotton Belt, the small irregular fields prevent the use of large equipment. Two horses are ordinarily used in preparing land for planting and only one in cultivating. In the High Plains area four and six-horse teams with two-row equipment constitute the most common work unit. The various differences, physical and economic, between the two areas are such that sixty-two man hours of labor are required prior to harvest to produce an acre of cotton in the Piedmont area and only eight man hours in the High Plains area. Tractors and two-row implements are quite common in the latter area and there is an increasingly strong tendency toward the use of four-row equipment. Such equipment permits the production of an acre of cotton previous to harvest with only four to five hours of man labor and enables a farmer to handle three hundred acres in crops, over half of it cotton, with little or no additional labor previous to harvest. When practically all the bolls are open the harvesting is quite commonly accomplished at one time by transient Mexicans who snap the bolls. It is clear that in some parts of the South mechanical harvesting may not be able to compete with hand picking; but in other sections it might offer great financial inducements.

The Rust machine has proved that it can pick cotton. Preliminary figures indicate that it picks, the first time it goes over a row, an average of about 75 per cent of the open cotton. The second time it picks an average of about 16½ per cent. The remainder, about evenly divided, is left on the plants and on the ground.[22] The machine needs a high-yield stand to do its best since it can cover about an acre an hour regardless of whether the yield of cotton is heavy or light.

The estimate of $2.50 per hour to cover the total cost of operating the machine, including the wages of two men, fuel and oil for the tractor, taxes, depreciation, and repairs, does not seem exorbitant.

[21] Bureau of Agricultural Economics, *op. cit.*

[22] Article by W. E. Ayres, Director, Delta Experiment Station, *The Commercial Appeal*, Memphis, November 13, 1936.

As the machine operates at present it would, if operating in cotton of good quality, have to go over a crop at least four times to harvest it satisfactorily. If we assume a bale to each two and a half acres, which is better than the average yield throughout the South, the harvesting cost per bale would be about $25.00, in contrast to $15.00 for cotton picked by hand at $1.00 per hundred pounds of seed cotton or $11.25 if the rate is $.75. The mechanical picker would make a much more favorable showing, of course, in the rare rich fields that yield a bale to the acre. We must not overlook the fact, too, that the arrival of mechanical harvesting would likely accelerate the acceptance of more efficient and economical methods of producing cotton. It has been estimated that during the three-year period 1929–1931, the cultivation costs of producing an acre of cotton in the Mississippi delta, using four-row tractor equipment was only $4.71, compared with $7.38 when four horses drew two-row equipment, $8.78 when two horses drew one-row equipment and $11.53 when half-row one-horse equipment was used.[23] In parts of Texas where the cotton is not of such high quality and where picking is the only operation that continues to be accomplished by hand, the mechanical picker might prove to be particularly valuable. In Texas, however, the Rust picker would be faced with competition from the harvester of the Texas Agricultural Experiment Station. This harvester is of the stripper type and consequently cannot operate satisfactorily until practically all of the bolls are open,[24] but in a test at Lubbock, Texas, in November, 1936 it is reported to have harvested an average of 97.7 per cent of the cotton from the plants, and its product classed only one grade lower than cotton picked by hand the same day.[25]

Several changes will likely appear on the 1937 model of the Rust machine. It is possible that two picking units will be used tandem fashion, in the hope that the necessity for going over a field twice for each picking will be eliminated. If the machine can be made to pick cotton more efficiently, extended to harvest two or more rows at one time, and mounted on a tractor enabling one

[23] Delta Experiment Station, *Bulletin No. 298*, Table 7.

[24] Texas Agricultural Experiment Station, *Bulletin No. 511*.

[25] Letter from H. P. Smith, Chief Division of Agricultural Engineering, Texas Agricultural Experiment Station.

man to operate the entire unit and especially designed to operate on soft ground, its chances of being accepted will be materially increased.

Mechanical harvesting of cotton is not as nearly perfect as hand picking and may never be. Skilled handiwork is ordinarily superior in quality to machine work, but mass production is so economical that it may distribute goods more widely and therefore add to human wealth and happiness. The Rust picker still has some mechanical weaknesses, and it remains to be seen whether the inventors have the ingenuity to overcome them. Such imperfections are usually noted in a new machine before continued experimentation with its operation reveals ways to remove the kinks. One can only theorize as to the possibilities of the Rust picker until it has been tried out for several seasons by unskilled mechanics under actual working conditions.

It seems reasonable to anticipate that economic conditions will be a major factor in determining whether and when mechanical cotton pickers will be widely accepted. With a large supply of low-wage labor available, mechanical pickers are not so attractive as they would be if industry were bidding actively for labor. The first patent for a cotton stripping device was issued in 1871 but it was not until the fall of 1926 when the "farmers of Northwest Texas were confronted with a scarcity of labor, high charges for picking and hand snapping, low prices for cotton, weather conditions adverse to harvesting by hand, and an unusually large crop"[26] that there was any widespread use of cotton sleds. Since that time this combination of circumstances has not been repeated and consequently not so much cotton has been harvested in this way. The prevailing wage for hand pickers will be a determining factor in the introduction of a mechanical harvester. During the 1936 season the rate per hundred pounds varied from fifty-five cents in South Carolina and Georgia to a dollar and ten cents in southern Missouri.

Another important consideration is the terms under which the mechanical harvester is available. Such terms are always subject to change but in order to retain some control over the labor conditions connected with the utilization of the Rust machine, the

[26] Texas Agricultural Experiment Station, *Bulletin No. 452.*

company plans to lease the machines rather than sell them. Late in 1936 Mack Rust stated the tentative terms at two thousand dollars for a three year lease plus two hundred dollars a year for succeeding years. Under these terms it does not seem logical to expect a great demand to develop.

If the Rust picker or another similar device should prove successful, the results will be far-reaching. Dr. Rupert B. Vance estimates that consolidation of holdings and reduction of demand for labor would result in a primary and secondary migration from the South of from six to seven million people.[27] The shift in cotton production from the Southeast to the Southwest would be accelerated. "The additional raw land that may be put into production in the western areas is indeterminate, but various estimates that have been made run into several millions (of acres)."[28] Mechanization would also reduce the need for feed crops and thereby add greatly to the cotton acreage on land now in cultivation. But it is not to be expected that cotton production in the Southeast would cease altogether, because many small owners would continue to grow cotton through the use of unpaid family labor.

Cheaper cotton obtained through the use of a successful machine would enable cotton goods to compete more successfully with other textiles. The general effect on the competitive position of American cotton in world markets is problematical. As compared with cotton from India, where there is a plentiful supply of cheap labor and the yield per acre averages only about eighty pounds, the position of American cotton would be improved, but mechanization might open to the crop countries such as Brazil and Argentina which have large amounts of undeveloped land capable of producing a relatively high yield of cotton but which are now handicapped by a scarcity of labor.

If the Rust cotton picker should prove to be the beginning of a great economic revolution, it is safe to assume that it will not be a violent one but will proceed slowly enough to permit the necessary adjustments.

[27] Goodrich and Others, *Migration and Economic Opportunity*, p. 157.

[28] Bureau of Agricultural Economics, *op. cit.*, p. 29.

POPULATION PROBLEMS IN THE SOUTH—PART I

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This study is divided into three parts, each of which is in part a summary of or a derivative of the many scattered studies of the population of the South, and in part a presentation or interpretation of new materials. Part I deals with trends in the growth of the Southern population and its component parts and with trends in fertility and natality indices. Part II will deal with differential fertility in the South and with Negro and White migration within the South and between the South and other parts of the United States. Part III will treat of the application of population theory to the South, of the effects of Southern demographic trends upon economic conditions in the South, and of the comparative efficacy of various means of absorbing or providing for the growing population of the South. In each part findings for the South are contrasted with corresponding findings for other regions or states.[1]

I

In 1900–1930 population increased less rapidly in the South than in the remainder of the country, both among Whites and among Negroes. The ratio of the non-Southern to the Southern rate of growth was less, however, in 1920–30 than in 1900–20. In the three periods 1900–1930, 1900–20, and 1920–30 the percentage increase in population in the Southeast was as follows: total, 41.4, 26.5, 13.5; non-Negro, 58.4, 36.4, 16.1; Negro, 13.5, 10.2, 3.0. The corresponding percentages in the remainder of the United States were: total, 67.9, 43.0, 17.3; non-Negro, 66.5, 42.9, 17.2; Negro,

[1] Unless otherwise indicated the terms South and Southeast are used interchangeably and refer to the region consisting of Virginia, the Carolinas, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, and Louisiana. For reasons for so defining "South" and for the states composing the regions given in Table I see Howard W. Odum, *Southern Regions of the United States*, Chapel Hill, 1936.

106.7, 46.4, 41.2.[2] In 1920–30 only two Southern states (Florida and North Carolina) were among the twelve states ranking highest in percentage increase in total population; four (Virginia, South Carolina, Georgia, Arkansas) were in the lowest quartile. Despite the relatively higher rate of Negro population growth outside the South in recent decades, the Negro population remains relatively greater in the South. In 1930 of the South's total population 30.4 per cent were Negro, the percentage ranging by states from 8.6 in Kentucky to 50.2 in Mississippi. Only seven non-Southern states had a percentage in excess of five, ranging from 5.2 in New Jersey to 16.9 in Maryland.

Although the South and the Southern states still remain less urban and metropolitan than other regions and most other states, urbanisation has been proceeding more rapidly in the South than elsewhere in the present century.[3] In 1900–1930, as well as in 1920–30, (Table I) the percentage increase in urban population experienced in the Southeast was exceeded only by the corresponding percentages experienced in the Southwest and in the Far West. If, however, we allow for the fact that total population increased more rapidly in the Southwest and the Far West (see columns 9–10, Table I), it is evident that urbanisation proceeded relatively more rapidly in the Southeast than in any other region. Comparison of ratios of urban to total increases for regions for each of the

[2] The non-Negro population of the South in 1900, 1910, and 1930 was as follows in thousands: 11,223, 15,310, 17,773; the corresponding Negro population was 6,851, 7,550, 7,778. Corresponding figures for the rest of the United States were: non-Negro, 55,931, 79,938, 93,111; Negro, 1,990, 2,913, 4,113. Calculated from *Census* of 1900, I, Part I, p. cxii, *Census* of 1930, II, p. 38. See also Table I.

[3] In 1930 the percentage of population that was urban ranged in the Southern states from 16.9 in Mississippi to 39.7 in Louisiana and 51.7 in Florida. In but ten non-Southern states was this percentage under 30. In 1930 the Southern population was distributed in percentages as follows: urban, 29.9; rural, 70.2; rural-farm, 47.7; rural non-farm, 22.5. Corresponding percentages for the rest of the country were 63.1, 36.9, 18.5, 18.4. In 1920–30 when the nation's urban population increased 27.0 per cent an appreciably lesser rate was experienced in but two Southern states (Virginia, 16.6; Georgia, 23.0). See *Census* of 1930, II, pp. 10–12; *Abstract* of the Fifteenth Census, 1930, pp. 15, 18. For a careful account of urbanisation and metropolitanisation in the South see Walter J. Matherly, *Social Forces*, XIV, 1936, pp. 311–25; *Southern Economic Journal*, I, 1935, pp. 18–26. We define as urban that population living in places of 2500 or more. For a perhaps better measure of urbanisation, comparable to Pareto's "law" of income distribution, see H. W. Singer, *Economic Journal*, XLVI, 1936, pp. 254–63.

three decades ending in 1910, 1920, and 1930 indicates a declining rate of urbanisation in the Far West, the Middle States, and the Northeast, but no definite trend in the other three regions given in Table I.

Although the urban population of the Southeast was not located in larger places in the same degree as in the United States,[4] it was tending to concentrate in an increasing degree in larger places. For in 1920–30 the proportion of the total population in the

TABLE I

PERCENTAGE OF POPULATION, URBAN AND METROPOLITAN, AND PERCENTAGE INCREASE IN URBAN AND TOTAL POPULATION, BY REGION, 1900–1930

REGION	PERCENTAGE METROPOLITAN IN 1930	PERCENTAGE URBAN		PERCENTAGE INCREASE IN POPULATION				RATIO OF PERCENTAGE URBAN INCREASE TO PERCENTAGE TOTAL INCREASE		PERCENTAGE OF TOTAL POPULATION (1930) IN PLACES OF		
				Urban		Total						
		1900	1930	1900–1930	1920–1930	1900–1930	1920–1930	1900–30	1920–30	100,000 or more	10,000 to 100,000	2,500 to 10,000
Southeast	14.6	15.3	29.8	175.9	39.6	29.3	11.8	6.00	3.36	10.1	12.3	7.5
Southwest	17.7	15.0	38.2	453.9	68.6	118.4	22.9	3.83	3.00	15.2	12.2	10.8
Far West	70.2	45.9	67.2	393.1	59.7	236.9	46.8	1.66	1.28	40.3	17.9	9.1
Northwest	46.6	24.8	35.6	131.4	17.8	61.5	6.8	2.14	2.62	11.9	13.8	9.9
Middle States	14.3	41.2	61.5	119.5	26.1	47.2	14.5	2.53	1.80	34.2	18.5	8.9
Northeast	61.5	66.0	74.7	84.1	18.2	62.8	15.8	1.34	1.15	43.0	23.3	8.4
United States	44.6[a]	40.0	56.2	123.9	27.0	61.6	16.1	2.01	1.68	29.6	17.9	8.6

For states comprising each region in column 1, see Odum, *op. cit.*

Column 2 from Odum, *op. cit.*, p. 68.

Columns 3–8, 11–12 from Matherly, *Social Forces*, XIV, 1936, pp. 312–15.

Columns 9–10 computed.

[a] Computed from United States Census, 1930, *Metropolitan Districts*, Table 4, p. 10.

South in places of 100,000 or more increased 46.4 per cent; in places of 10,000 to 100,000, 23.0 per cent; and in places of 2,500 to 10,000, 7.1 per cent; the corresponding percentages for the United States were 13.8, 9.1, and −4.4.[5] The metropolitan

[4] In 1930 only 34.6 per cent of the Southern urban population was in places of 100,000 or more. The corresponding percentages for other regions were: Southwest, 39.8; Far West, 60.0; Northwest, 33.4; Middle States, 55.6; Northeast, 57.6; United States, 56.2. Calculated from Matherly, *op. cit.*, p. 315.

[5] Calculated from *ibid.*, p. 314.

growth process in the Southeast in 1920–30 differed from that in other regions, however. For in the Southeast the percentage growth in central cities in metropolitan districts was the same as the percentage growth in that part of the metropolitan area lying outside central cities, whereas in the United States as a whole, percentage growth in parts outside central cities was double that in central cities.[6] Apparently, then, central cities within Southeastern metropolitan districts had not yet become so large that further growth within such cities was accompanied by a greater net disadvantage than would have been experienced had the said growth taken place in those parts of metropolitan districts lying outside central cities; in the other regions of the United States the central cities have become so large on the whole, apparently, that in respect to further growth the areas lying outside the central cities but within metropolitan districts now enjoy a differential advantage.

In 1920–30 deruralisation proceeded at least as rapidly in the South as elsewhere even though the 1930 census revealed the South still to be the most rural portion of the United States, eight of the fourteen states with more than 40 per cent of their population on farms in 1930 lying in the South (see also note 3, above). Between 1920 and 1930 the percentage increase or decrease in population by category in the South was as follows: urban, nearly +40.0; rural, +3.0; rural-farm, −4.1; rural non-farm, +3.3. The corresponding changes in the rest of the United States were: urban, +25.6; rural, +5.5; rural-farm, −3.7; rural non-farm, +13.1. But four Southern states (North Carolina, Alabama, Mississippi, and Louisiana) were included among the sixteen states registering an increase in rural farm population in 1920–30. In six Southern states the rural non-farm population increased by a percentage greater than that for the country as a whole.[7]

The Southern population living in average-size villages increased at a slightly greater rate in 1920–30 than did the cor-

[6] See *ibid.*, Table 7, p. 320.

[7] Calculated from *Abstract* of the Fifteenth Census, 1930, pp. 15, 18. A change in rural-urban classification in two New England states in 1930 slightly distorts the percentages of change in the non-Southern area. See W. S. Thompson and P. K. Whelpton, *Population Trends in the United States*, New York, 1933, pp. 19, 21, note.

responding population in the nation as a whole but at an appreciably lesser rate than did that in villages in the Middle Atlantic and Far West regions. At present the age-sex pyramid in agricultural villages in the South is more favorable to natural increase than that in the village population of other regions.[8] In 1920–30 the population in areas lying outside metropolitan districts increased 4.0 per cent in the South in contrast to 2.1 per cent for the United States. Corresponding percentages in other regions were: Southwest, 1.5; Far West, 20.2; Northwest, 5.0; Middle States, 2.6; Northeast, 6.5.[9]

Since 1930, chiefly as a result of the depression, the population growth trends noted in 1900–30 have been departed from. Between April 1, 1930, and July 1, 1935, the Southern population is estimated to have increased 2,139 thousands; that of the remainder of the country, 2,607 thousands. The increase in percentage was: United States, 3.9; South, 8.4; rest of United States, 2.7.[10] But two Southern states (Mississippi and Louisiana) were among the twelve ranking lowest in percentage of population increase in 1930–35; one (Alabama) ranked intermediately; the other eight were among the twelve highest. Nearly one-fourth of the Southern increase and nearly one-third of the non-Southern increase occurred in the rural-farm population. Between April 1, 1930, and January 1, 1935, the Southern farm population increased 516 thousands or 4.2 per cent; the non-Southern, 819 thousands or 4.5 per cent. In six Southern states (the Carolinas, Georgia, Alabama, Mississippi, and Louisiana) the rate of increase was less than the non-Southern rate according to the Census of Agriculture for 1935.

II

Were it not for net emigration from the South the Southern population would grow more rapidly than that of other regions. For at present and in recent decades natality, fertility, and gross and net reproduction have been higher in the South than in other

[8] See J. H. Kolb and E. de S. Brunner in *Recent Social Trends*, I, pp. 512, 514. South here includes the three Southern divisions of states.

[9] See Matherly, *op. cit.*, p. 320.

[10] Calculated from Bureau of Census estimates, New York *Times*, May 11, 1936, and census returns for 1930. State totals are given in Table A.

parts of the United States among both Whites and Negroes.[11] Only among the foreign-born do we find higher fertility in certain non-Southern than in the Southern divisions.[12] In 1930, the last year before the depression had become intense enough to influence natality appreciably, the eleven American states ranking highest in White natality included eight Southeastern states; all but Florida were included in the highest third. The rate for Whites by region was: Southeast, 21.7; remainder of United States, 17.1; United States, 18.5.[13] Although crude death rates were somewhat higher in the Southeastern states, they were not high enough to offset the higher natality, for in 1930 the seventeen states with a crude natural increase of more than ten per 1000 White population included ten Southeastern states. Because of state differences in age composition and because of variations by state in the completeness of birth registration, indices of crude natality and natural increase do not give an adequate picture of present and prospective natural population growth.[14]

[11] Ever since 1880 the ratio of White children 0–4 to 1000 White women aged 20–44 has been higher in the South Atlantic and East and West South Central divisions of states than in the other divisions of the United States and the country as a whole. In 1880 and prior to 1880 the ratio in the South Atlantic states was exceeded by that of several other divisions, but never by the ratio for the country as a whole. Since the Civil War the corresponding ratio for the Negro population has been higher in the three Southern divisions than in other parts of the United States. See L. I. Dublin, "The American People," *Annals* of the *American Academy of Political and Social Science*, CLXXXVIII, November, 1936 (hereafter referred to as *Annals*), p. 41, Table II, in essay by P. K. Whelpton.

[12] In 1929 the number of births per 1000 foreign-born White women was higher for all age groups in the North Central and Northeastern states than in the Southeast. See Thompson and Whelpton, *op. cit.*, pp. 274–75; also below. In 1910 only three of the six non-Southern divisions had a higher ratio of children 0–4 to 1000 foreign White mothers than did one or more of the three Southern divisions (South Atlantic, East and West South Central); in 1920, five; in 1930, six. See Whelpton, *Annals*, p. 41. So far as the South is concerned, however, the fertility of the foreign-born is of little significance, for with the exception of Florida, less than 2½ per cent of the population in any Southeastern state is of foreign birth.

[13] Calculated from W. F. Willcox, *Introduction to the Vital Statistics of the United States 1900 to 1930*, Bureau of the Census, Washington, 1933, p. 134. Texas and South Dakota were not included in the registration area in 1930.

[14] T. L. Smith has shown recently that, as of 1929, completeness of birth registration in the South ranged from 91.6 per cent of all births in Virginia to 77.2 in Tennessee. In but four other states (no records are available for Texas and South Dakota), all predominantly rural, did 15 or more per cent of births escape registration. For the United States as a whole about one-tenth of all births escape registration. Registration is much less complete in rural than in urban areas. See Smith, *Social Forces*, XIV, 1936, 368–72; also P. K. Whelpton, *Journal of American Statistical Association*, XXIX, 1934, pp. 125–36.

In 1930 fertility was higher in the South than elsewhere, both for the White population as a whole and for the married White population. Thus in 1930 six Southern states were included among the twelve states with a gross reproduction of 1.3 or more; only Florida ranked relatively low.[15] In 1930 when the number of children, 0–4 and of native White maternity, per 1000 native White women aged 20–44 was 479 in the United States, the corresponding ratio ranged (excepting Florida with 520) from 583 in Louisiana to 694 in North Carolina; only six non-Southern states had a ratio in excess of 583.[16] In 1930 all the Southern states but Florida were among the upper one-third of states ranked according to children under five per native White married woman and according to estimated average completed fraternity for White native mothers.[17] In 1930 the ratio of children 0–4 to wives 15–44 was as follows in the South: all White wives, 780; native White wives, 782; foreign-born White wives, 573; Negro wives, 745. Corresponding rates for the rest of the United States were 604, 604, 603, 509.[18] Thus only among foreign White wives (who constituted but 1.2 per cent of all Southern White wives) was the ratio lower in the South than elsewhere. In 1928 the number of children ever born per White mother bearing children in 1928 was 3.2 for the United States; it ranged from 2.9 to 3.8 in the South, only Florida showing an average below the national level.[19]

Net reproduction is greater in the South than elsewhere in the population without regard to class or race, and in the White population. Childless families are less frequent, families of three or more children more frequent in the South.[20] In 1930 the ratio of children to women in the native White population was sufficient to permit an increase per generation in the Southeast (excepting Florida with an increase of 17 per cent) ranging from

[15] B. D. Karpinos, *Social Forces*, XIV, 1935, p. 218. No allowance is made for non-registered births.

[16] F. Lorimer and F. Osborn, *Dynamics of Population*, New York, 1935, pp. 358–59.

[17] *Ibid.*, p. 12.

[18] Calculated from Willcox, *Introduction*, pp. 127–28, 130–31.

[19] See *Birth, Stillbirth, and Infant Mortality Statistics for . . . . the United States*, 1928, p. 6. The corresponding average for Colored mothers was 3.7 in the United States; 3.4 to 4.1 in the South where four states exceeded and three equalled the national average.

[20] In 1930 of the census-enumerated families with husband and wife present, the percent-

32 per cent in Louisiana to 57 per cent in North Carolina; only six non-Southern states had a rate in excess of 32 per cent.[21] According to Karpinos' calculations, in 1930 eight Southern states were among the eighteen with a net reproduction rate of 1.15 or more for the entire White population; only one Southern state, Florida, had a rate below 1.05, whereas fifteen non-Southern states had rates below 1.05.[22] In 1929–31, according to the computations and assumptions of Dublin and Lotka, in but ten American states was there a *true* natural increase of more than eleven per 1000 White females. Five of these ten states were Southern; the other Southern states (excluding Florida) had a rate more than double the national rate.[23] These findings are corroborated by Whelpton's results (see *Annals*, p. 38) which indicate roughly that net replacement among Southern native Whites exceeds net replacement among all White in all states other than the Mountain states.

Natality, fertility, and net reproduction are greater among Southern than among non-Southern Negroes. Crude Negro

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ages of the total number of families with the designated number of children under twenty-one in household were as follows:

Households Classified According to Number of Children under 21, 1930

NUMBER OF CHILDREN UNDER 21 YEARS OLD	UNITED STATES				SOUTH	UNITED STATES OTHER THAN SOUTH
	All	Urban	Rural Non-Farm	Rural-Farm		
No children	31.9	34.8	31.7	25.0	26.6	33.2
1 child	22.5	24.1	22.1	19.0	20.8	22.9
2 children	18.2	18.7	18.0	17.0	17.1	18.4
3 or more children	27.5	22.5	28.2	39.0	35.6	25.4

These figures are taken or computed from *Types of Families in the United States*, Bureau of the Census Release, August 5, 1935. We employ the term South to include the eleven states we have defined as Southern, following Odum.

[21] Lorimer and Osborn, *op. cit.*, pp. 358–59.

[22] Karpinos, *op. cit.*, pp. 219–20. No allowance is made for unregistered births. No rates are given for Texas, South Dakota, and Maine.

[23] These latter rates were: United States, 2.82; Louisana, 6.44; Virginia, 7.22; Tennessee, 8.3; South Carolina, 8.42; Georgia, 9.13. Only Florida, with a rate of −2.94, was among the twelve states with a negative rate of increase. See L. I. Dublin and A. J. Lotka, *Length of Life*, New York, 1936, p. 259; A. J. Lotka, *Journal of American Statistical Association*, XXXI, 1936, pp. 273–76. No rates are given for Texas, South Dakota, and Maine. Correction is made for incompleteness of birth registration.

natality in 1930 was: South, 22.4; remainder of United States, 19.3; United States, 21.6.[24] In 1929 the birth rate for Negro women aged 15 to 44 was about one-third higher in representative Southern than in representative non-Southern states.[25] The ratio of children 0–4 to Negro women 20–44 is half again as high among Southern as among non-Southern Negroes. The ratio of children to married women among Negroes is nearly half again as high in the South as elsewhere. The Negro population is more than replacing itself only in the South where Negro births are about 10 per cent above replacement needs; in the remainder of the country they fall about one-fifth below.[26]

Although certain indices show greater fertility both in the South and in some other parts of the United States in the Negro than in the White population, net reproduction is greater among the Whites both in the South and in other parts of the United States.[27] For the country as a whole the native White replacement rate, according to Whelpton, is about 4 per cent above the Negro rate; in the South it is somewhat more than one-tenth above Negro rate.[28]

The excess of Southern over non-Southern fertility is attribut-

[24] Calculated from Willcox, *Introduction*, p. 134. Because of incomplete registration these rates are too low.

[25] Thompson and Whelpton, *op. cit.*, pp. 274–75.

[26] See Whelpton, *Annals*, pp. 38, 41, 46; also note 18, above. H. F. Dorn, assuming a 15 per cent under-registration of births, estimated net reproduction among the Negro population as follows: South, 1.131; North, 0.801; United States, 1.034. See H. F. Dorn, *American Journal of Sociology*, XLII, 1936, pp. 211–12. Thompson and Whelpton (*op. cit.*, pp. 274–75, 281) found a true rate of natural increase of 8.9 in representative Southern states; −1.1 in Northern states, and −9.9 in Northern cities.

[27] Incompleteness in birth returns and undercounts of children make precise comparison of White and Negro fertility difficult. Lorimer and Osborn (*op. cit.*, pp. 47, 355) estimate the deficiencies in census returns of children and conclude that in the rural-farm population White net reproduction may have been below Negro net reproduction for the country as a whole. W. S. Thompson reached a similar conclusion in regard to Negro net replacement in parts of the South in 1920. See Thompson, *Ratio of Children to Women 1920*, Washington, 1931, p.145.

[28] Cf. also Dorn's rate of 1.131 for Southern Negroes with the rates for Southern native Whites suggested by Karpinos and Lorimer and Osborn. Dorn estimated the net replacement rate for White women in 1930 at 1.08 compared with a Negro rate of 1.034. He shows, however, that given White mortality, the Negro replacement rate would have been about one-eighth higher. Dorn rejects S. J. Holmes' conclusion that the Negro rate of increase was increasing and threatening to overtake that of the White population. See Holmes, *American Journal of Sociology*, XLII, 1936, pp. 202–11, 212–14; Dorn, *ibid.*, pp. 211–12.

able in a large degree to the fact that the Southern population is composed of higher fertility groups in a larger proportion than is the non-Southern population, and to the fact that in the South the high fertility groups are more fertile than the corresponding groups in the rest of the country. For example, in 1930 the number of children 0–4 per 1000 rural farm women aged 15–44 (regardless of race or nationality) was higher in each Southern state than in the nation as a whole; this ratio was higher in the rural non-farm population of eight Southern states than in the nation as a whole; but it was slightly below the national ratio for communities of 1,500 or more in all but three Southern states.[29] In 1930 the ratio of children to rural farm women was greater among Whites and Negroes in each Southern division than elsewhere. This relationship virtually holds in respect to the White rural non-farm population and to some extent in respect to the Negro rural non-farm population. It ceases to hold for the population, White or Black, living in communities of 2,500 or more, for in so far as this urban group is concerned the Southern ratios are very frequently below those prevailing in non-Southern divisions.[30]

III

Gross and net fertility have been falling more rapidly in the Southern White population than in that living elsewhere. The ratio of children 0–4 to native White women 20–44 declined 16 per cent in the United States in 1910–30, 10 in 1920–30. The corresponding decline in the three Southern divisions was: South Atlantic, 20, 15; East South Central, 19, 10; West South Central, 32, 16. (Calculated from Whelpton, *Annals*, p. 41.) In 1920–30 this ratio fell by 11–18 per cent in individual Southern states (except Kentucky where it fell but 6 per cent), that is, by a rate in excess of the national rate of decline and particularly of that in the North Central and Eastern states.[31] In 1920–1930 the number of children under ten per 100 women (race and nationality disregarded) living in agricultural villages fell from 107 to 99.7 in

[29] See O. E. Baker, *Annals of the Association of American Geographers*, XXIII, 1933, p. 73.
[30] See Whelpton, *Annals*, p. 46.
[31] See Lorimer and Osborn, *op. cit.*, pp. 358–59.

the three Southern divisions; from 99.6 to 95.7 in the country as a whole.[32] In 1900–1930 the number of children under five per 1000 White wives 15–44 decreased by 341 in the South, by 263 in the remainder of the country; the percentage decline in each area was the same, 30.3.[33] In 1900–1930 the absolute decline in this ratio in ten Southern states ranged from 305 to 418; in per cent from 28 to 39. The corresponding declines for the nation as a whole were 194 and 25. Only Kentucky, with corresponding values of 213 and 21, lagged behind the national trend.[34] Only two non-Southern states registered absolute declines as great as those in the Southern states. In 1920–30 net reproduction among native Whites in the South fell by 6–13 per cent in states other than Kentucky where no decline occurred; the decline for the nation as a whole was 5 per cent, for most non-Southern states, less than 5 per cent.[35] Crude natality data for 1935 and 1936 suggest no change in the comparative trends described in this paragraph. In 1935 only two Southern states, Florida and Mississippi, were among the nine states showing an increase in natality. In 1936, according to provisional figures, the decline in natality was appreciably above the national average decline in the two Carolinas, Florida, Alabama, and Tennessee; crude mortality, which increased about 5 per cent in the nation in 1936, increased by appreciably more than 5 per cent in Tennessee, Alabama, Mississippi, and Louisiana.

Negro fertility apparently declined more in the Southern than in the non-Southern states. In 1900–1930 the ratio of children 0–4 to Negro wives fell 35.6 per cent in the South; 16.9 per cent elsewhere. During this period the corresponding White ratio fell 30.4 per cent in the South.[36] In the 1920's the true rate of natural increase among Negroes declined in the South, rose in

[32] See J. H. Kolb and E. de S. Brunner, *Recent Social Trends*, I, p. 515.

[33] Calculated from Willcox, *Introduction*, p. 127. In 1890–1930 the percentage declines in this ratio for foreign-born White wives was: South, 48.9, rest of country, 43.1; for native White wives, South, 31, rest of country, 26. Calculated from *ibid.*, pp. 130–31.

[34] See W. F. Willcox, *Quarterly Bulletin* of the Milbank Memorial Fund, X, 1932, p. 196. Lorimer, employing a slightly different procedure, obtained approximately similar results. See *ibid.*, XI, p. 6.

[35] Lorimer and Osborn, *op. cit.*, pp. 358–59.

[36] Calculated from Willcox, *Introduction*, pp. 127–28.

the North; the decline in the Southern Negro rate was apparently no greater than the corresponding decline among Southern Whites.[37]

Not all categories of the Southern population experienced a more rapid decline in fertility in 1920–1930 than did corresponding non-Southern categories. In 1920–30 the ratio of children 0–4 to women 15–44 (color and nationality disregarded) declined for the nation as a whole 19.3 per cent in cities of 100,000 or more; 14.8 in places 2,500 to 100,000; 10.6 in the rural non-farm population; 10.8 in the rural farm population. In the Southern states, the corresponding decline in cities of 100,000 and over ranged from 1.6 to 11.1 per cent; in places of 2,500 to 100,000, from zero to 14.9 per cent, but one state showing a decline of 11 or more per cent; in the rural non-farm population, from 0.8 to 10.9, only two states exceeding the national average; in the rural farm, from 2.4 to 14.6, four states exceeding, three approximating, and four falling below the national average.[38] The failure of Southern non-rural fertility, as here measured, to decline as rapidly as non-Southern non-rural fertility in 1920–30 is in part traceable to two factors: (a) in 1920 the ratio here used was already lower in the Southern than in the non-Southern urban population; it was below the national level for rural-non-farm population in seven Southern states, and above the national level only in the rural farm population (i.e., in nine Southern states);[39] (b) much of the Southern urban growth in 1920–30 consisted of migrants from Southern farms[40] who brought children and supra-urban-fertility *mores* with them.[41] In general, then, the rapprochement between Southern

[37] See Thompson and Whelpton, *op. cit.*, p. 281. It is in the rural-farm population, within which category a large proportion of the Southern Negroes fall, that net reproduction among Negroes most closely approximates that of Whites. See Lorimer and Osborn, *op. cit.*, pp. 46–47. Since 1910 and since 1920 the percentage decline in the ratio of children to women in the Negro population in the South Atlantic and South Central states has not differed much from that occurring in the Negro population as a whole. See Whelpton, *Annals*, p. 41.

[38] See O. E. Baker, *Annals . . . . of Geographers*, *op. cit.*, p. 74.

[39] *Ibid.*, p. 72.

[40] The Southern rural population increased 2,162,000 in 1920–30; over one-half of this increase consisted of migrants from Southern farms.

[41] In 1930, according to T. J. Woofter, the ratio of children to women in Southern industrial and textile villages was appreciably above that observed in stable agricultural and residential villages because the two former classes of villages consisted in relatively larger proportions of

and non-Southern fertility by state is traceable (a) to the relatively greater decline in Southern rural-farm fertility and (b) to the shift of the Southern population from higher-into lower-fertility categories.[42]

IV

The data we have presented suggest that the rate of natural increase will decline more rapidly in the immediate future in the South than elsewhere. Neither the marital factor[43] nor the mortality factor is likely to change sufficiently in the South in a man-

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recent migrants from farms who had brought children with them. The same phenomenon is observable in sample non-Southern industrial villages. See Woofter, *Milbank Memorial Fund Quarterly*, XIII, 1935, pp. 316–19.

[42] Between 1920 and 1930 the ratio of children under ten to all women 20–45 years of age living in agricultural villages fell 6.8 per cent in the South and 3.9 per cent in the nation. Calculated from Kolb and de S. Brunner, *Recent Social Trends*, I, p. 515. A recent study by C. V. Kiser shows that the fertility of native White married women in Greenville (South Carolina) mill villages, has for thirty years been above that in poor areas in Northern cities, but in that period has declined slightly more than that observed in the poor areas; that the decline has been most pronounced among the wives aged 35–44 years. See *Milbank Memorial Fund Quarterly*, XV, 1937, pp. 54–55, 60.

[43] Marital composition is already more favorable to fertility in the South than elsewhere. See Thompson and Whelpton, *op. cit.*, ch. vi, pp. 398–408; Lorimer and Osborn, *op. cit.*, p. 361. The median age at marriage as reported by the Bureau of the Census for 1930 was below the national median for both male and females in each of the eleven Southern states, presumably chiefly because a larger proportion of the Southern population was in the rural-farm category in which the age at marriage for both male and female in the nation at large is 0.4 and 1.0 year respectively below the national urban median, 25.1 for males, 22.3 for females. The male and female medians for Negroes were 1.9 and 1.5 below the native White medians in the nation at large. See Census Release, October 15, 1935. Paul Popenoe finds that the most marriageable females are those aged 20–29, the most marriageable males, 25–34, Thirty-one states have a ratio of unmarried native White males aged 25 to 34 to unmarried native White females aged 20–29 that is as high as or higher than that of Louisiana where the ratio is slightly higher than in other Southern states. See *Social Forces*, 1935, XIV, pp. 257–62, especially p. 260. W. F. Ogburn's analysis indicates that for the United States as a whole the superiority (as regards fertility) of rural over urban marital composition is diminishing. If this trend continues in the South which is as yet predominantly rural its differential advantage in marital composition, based on ruralism, will diminish. See Ogburn, *American Journal of Sociology*, XLI, 1935, pp. 288–92; also S. A. Stouffer and L. M. Spencer, *Annals*, pp. 56–69. Improvement in Negro marital composition will tend to affect the ratio of Negro to White fertility more than that of Southern to non-Southern Negro fertility. See Thompson and Whelpton, *op. cit.*, pp. 224–26. A continuation of northward Negro migration will continue to unbalance the Negro sex ratio and reduce natural increase among both Southern and non-Southern Negroes. See T. J. Woofter, *Recent Social Trends*, I, pp. 561–62.

ner to favor Southern fertility relative to non-Southern fertility.[44] In general, the decline in Southern fertility and its approach toward the non-Southern level will be governed chiefly by two factors: (a) alterations in the culture and in the socio-psychological outlooks of the rural-farm population; (b) the extent to which the Southern population shifts from high-fertility geographical and occupational *milieus* (chiefly agricultural and extractive) to *milieus* (chiefly non-rural) characterized by lower fertility.

At present the occupational and territorial distribution of the Southern population lags behind that of the rest of the United States (see next section, also Part II of this paper). In proportion as this lag is reduced and in proportion as urbanisation, industrialisation, and education spread,[45] there will be a greater frequency of incentive to curtail family size and a greater capacity to effect such curtailment.[46] Southern fertility will approach that ob-

[44] In 1929–31 the standardized death rate for Whites was slightly higher in the South as a whole than elsewhere; six Southern states had rates above the national rate and seven had a White female life expectancy at birth below the national average. See Dublin and Lotka, *op. cit.*, pp. 82–83, 87. Negro mortality is somewhat lower in the South than elsewhere. See *ibid.*, pp. 362–63; Thompson and Whelpton, *op. cit.*, pp. 362–63. Negro mortality is appreciably higher than White mortality; if it were to decline to the White mortality level, Negro net reproduction would remain below that of the Whites in the South, but would exceed that of the Whites in the nation as a whole by about 6 per cent. See Whelpton, *Annals*, p. 38.

[45] Progress in urbanisation, industrialisation, and education depress natality. Lotka has found correlations of $-.65 \pm .09$ and $-.80 \pm .05$ between states ranked according to white true natural increase in 1929–31 and degrees of industrialisation and urbanisation respectively of states. See Lotka, *Journal*, *loc. cit.*, p. 274. Ellsworth Huntington finds correlations of $-.58 \pm .065$ between net reproduction and school expenses per child and $-.52 \pm .071$ between net reproduction and the number of physicians, nurses, and doctors per 100,000 population. See Huntington in A. E. Parkins and J. R. Whitaker, *Our Natural Resources and Their Conservation*, New York, 1936, pp. 571–72. See also Spengler, *Journal of Heredity*, XXVII, 1936, pp. 8–10; Lorimer and Osborn, *op. cit.*, pp. 317–19; F. W. Notestein, *Annals*, p. 32; Whelpton, *ibid.*, pp. 47–55.

[46] Although as yet data by region are lacking, it is probable that contraceptive information is more widely diffused among both Whites and Negroes outside the South. To what extent observed fertility has been and is reduced by venereal disease it is impossible to say in light of present data for either Negroes or Whites. Presumably this check is more operative among Negroes, for Raymond Pearl's studies show that the percentage of Negro women who have practiced contraception is only 27 to 35 per cent of the corresponding percentage for White women. See *Milbank Memorial Fund Quarterly*, XIV, 1936, p. 283. David Cohn, in his account of the Delta Negro (*God Shakes Creation*, New York, 1935, pp. 118–19) states that among the rural Negroes contraceptive devices are "almost unknown, although in the towns there is some knowledge"; that no need for contraception is felt; that about 80 per cent of the Negroes in this area suffer from venereal diseases.

served outside the South in proportion as cultural characteristics associated with low fertility—characteristics less common in the South, particularly the rural South, than elsewhere—are diffused through the Southern population through improved rural education, improved rural economic conditions, and shifts of the population from rural into non-rural areas and occupations.

Since the future population of the South depends upon trends in natural increase and migration, and since these trends in turn will be conditioned largely by socio-economic changes in the South and elsewhere, only a rough and contingent forecast of the future population of the South is possible. In Table II we give estimates of possible changes in the Southern population in

TABLE II

PROSPECTIVE POPULATION GROWTH, BY CLASS, 1930–50, WITH AND WITHOUT MIGRATION (IN THOUSANDS)[a]

REGION	WITH MIGRATION				WITHOUT MIGRATION			
	Rural Farm	Rural Non-Farm	Urban	Total	Rural Farm	Rural Non-Farm	Urban	Total
United States	−1167	+4694	+11,682	+15,209	+10,234	+4598	+1477	+16,309
Southeast	−525	+1554	+1,629	+2,658	+5,135	+1562	−43	+6,654
Rest of United States	−642	+3140	+10,053	+12,551	+5,099	+3036	+1520	+9,655

[a] Calculated from Table A.

1930–50, adapted from forecasts prepared by Thompson and Whelpton for the National Resources Board.[47] Analysis of the

[47] For figures by states see Table A. These estimates rest upon two sets of assumptions: (a) that urbanward and interstate migration would continue as in 1920–30; (b) that there would be no internal migration. Given the latter assumption fertility and total growth are necessarily higher. Four assumptions underly each of the estimates based upon migration and no migration: (a) that the birth rate by age of women will decline at a decreasing rate, the levels for 1940–44 and 1950–54 approximating 86 and 79 per cent respectively of the 1929–33 level; (b) a gradual increase in expectation of life at birth, approximating five years by 1960; (c) that migration to and from the United States will balance; (d) that "the differential between age specific birth and death rates for the United States and those for the urban, rural-nonfarm, and rural-farm population of each state will be reduced about one-third from 1930 to 1960." See p. 1 of mimeographed report released by Scripps Foundation, October, 1935; P. K. Whelpton, *Journal of the American Statistical Association*, XXXI, 1936, pp. 457–73. In this mimeographed report slightly revised figures are given. The Southern population will total 28,230 and 29,066 thousands in 1950 and 1960, given migration; 32,202 and 35,168 without migration. Corresponding figures for the rest of the United States are: with migration, 110,213 and 112,058; without migration, 106,924 and 108,334.

TABLE A

POPULATION BY CLASS, 1930–50 (IN THOUSANDS)

STATE AND REGION	POPULATION IN 1930[1]				TOTAL POPULATION IN 1935[2]	POPULATION IN 1950 BY CLASS						TOTAL IN 1950[1]	
						With Migration[1]			Without Migration[1]				
	Rural Farm	Rural Non-Farm	Urban	Total		Rural Farm	Rural Non-Farm	Urban	Rural Farm	Rural Non-Farm	Urban	With Migration	Without Migration
Virginia	953	691	788	2432	2637	831	856	865	1281	880	791	2552	2952
North Carolina	1606	767	813	3186	3417	1752	1081	1119	2354	1014	878	3952	4246
South Carolina	918	456	373	1747	2012	747	646	429	1332	584	375	1822	2291
Georgia	1421	602	900	2923	3345	1126	764	1023	2083	735	891	2913	3709
Florida	276	436	763	1475	1614	270	563	1071	364	518	738	1904	1620
Kentucky	1179	643	802	2624	2846	1023	913	915	1655	865	794	2851	3314
Tennessee	1219	509	900	2628	2904	1143	592	1118	1688	665	891	2853	3244
Alabama	1343	570	748	2661	2834	1343	651	927	1942	720	751	2921	3413
Mississippi	1367	312	341	2020	1961	1498	342	399	1894	361	315	2239	2570
Arkansas	1123	356	384	1863	1999	1086	403	136	1567	434	365	1925	2366
Louisiana	831	443	837	2111	2121	892	528	976	1211	571	817	2396	2599
Southeast	12,236	5785	7649	25,670	27,690	11,711	7339	9278	17,371	7347	7606	28,328	32,324
Remainder of United States	18,055	17,977	61,531	97,563	99,831	17,413	21,117	71,584	23,154	21,013	63,051	110,114	107,218
United States	30,291	23,762	69,180	123,233	127,521	29,124	28,456	80,862	40,525	28,360	70,657	138,442	139,542

Note 1. Calculated from W. S. Thompson and P. K. Whelpton, *Estimates of Future Population by States*, National Resources Board, Washington, 1934.

These figures are corrected for under-enumeration of children under five years of age.

Note 2. Census Estimate for July 1, 1935, New York *Times*, May 11, 1936.

figures in Table II indicates that both the size of the Southern population and its composition will be greatly influenced by the degree of migration that takes place. Given migration the Southern population will increase as follows in per cent by category in 1930–50: total, +10, urban, +21; rural-farm, −4; rural non-farm, +26. Assuming no migration the corresponding percentages will be +28, −0.6, +42, and +27. The corresponding percentages for the rest of the United States will be: with migration, +13, +16, −4, and +17; without migration, +10, +2.5, +28, and +17. Given no migration the Southern population will exceed by four millions what it would have been, given migration; the non-Southern population, given no migration, will be nearly three millions less than it would have been, given migration.

The materials which we have presented indicate that prior to 1930 when the depression began to make itself felt the population of the South was growing less rapidly than that of the remainder of the country. The South's comparatively slower growth, while traceable ultimately to differences between economic conditions in the South and in the remainder of the country, was due to net migration from the South and to net immigration into non-Southern regions. For net reproduction has been and remains higher among both Negroes and Whites in the South than in the rest of the country. However, as we have indicated in part and as we shall demonstrate more fully in Part II, net reproduction is higher in the South than elsewhere chiefly because the Southern population consists in a much larger degree of categories to whom high fertility is peculiar. Net reproduction in the South will fall therefore in proportion as the relative number of Southerners in low fertility categories increases and in proportion as fertility declines in those categories to which high fertility has been peculiar in the past. In recent decades fertility in the South has declined more rapidly than elsewhere because of the two fertility-reducing changes just mentioned. This relative decline will continue in the future. Whatever the degree of decline, however, the South will probably send to other parts of the United States at least three million migrants during the next fifteen years. A number of questions or problems arise, therefore. Should the

South send out this number of migrants, or a smaller or a greater number? Will and can non-Southern regions absorb these migrants? Whence ultimately come these migrants? What effect have they upon the population in areas of destination? What national and regional policies are prerequisite to an efficient handling of these migrants? Questions such as these will be dealt with in the two remaining portions of this paper.

THE SITUATION IN CHAIN-STORE DISTRIBUTION

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Chain stores, as an economic and a social phenomenon, have been more widely discussed in this country during the past ten years than has practically any other economic institution. Until recently rather inarticulate themselves, they have been praised by the admirers of large-scale operations and damned by those who consider them a social menace.

The term "chain" or "chain-store system," as used in this article, except when figures from the Bureau of the Census are used, "is applied to organizations owning a controlling interest in two or more establishments which sell substantially similar merchandise at retail."[1] This type of organization is not a chain, according to the Census, unless there are four or more stores in the unit.[2]

The concept of a chain-store system no doubt followed the establishment of a chain of stores. Whether one considers the Hudson Bay Company trading posts, Andrew Jackson's general stores, or the Great Atlantic and Pacific Tea Company as the first chain, each chain started with one unit and expanded naturally as the result of growth. As an independent merchant sees his sales mount, he has the alternative of increasing the size of his store building or of breaking up his increasing stocks of merchandise and spreading them out geographically where, in his opinion, they will move most rapidly and profitably. There are advantages in both methods: the first policy applies primarily to shopping goods; and the other applies to what is called convenience or impulse merchandise.

[1] Federal Trade Commission, *Chain Stores, Scope of the Chain Store Inquiry*, Washington, 1932, p. 2.

[2] Bureau of the Census, *Fifteenth Census of the United States, 1930, Distribution, Volume 1, Part I*, Washington, 1933, p. 17.

I

Chain stores have developed as the third type of mass distributor, attracting national attention and the fearful concern of the more orthodox type of distributor, particularly the medium or small-sized independent retailer. Following the department store and the mail-order house, the corporate chain first attracted wide attention with the formation of the F. W. Woolworth Company in 1912. It has been estimated by the Federal Trade Commission that by 1915 there were something over 26,000 chain stores in the United States.[3]

What was the condition of the independent stores at this time? They were the traditional type of retail outlet. Many items were sold by the yard, pound, dozen; that is, in bulk. Aside from the department stores of that day, and some "down town" specialty stores, most of the independents presented a dingy front, an indifferent window display, a poorly lighted interior filled with open and closed shelving and wooden and glass counters, with the merchandise piled all around, much of it out of sight and all of it out of reach of the customers. As retailing attracted better management, however, as capital funds were more easily available, as the modern corporate structure developed, as improved transportation facilities were extended, as packaging grew more common, and as national distribution developed, it became more feasible to own, and more possible to operate successfully, stores widely distributed geographically. For the first time, in a practical sense, it was possible to apply to distribution some of the lessons learned during the preceding 150 years from mass production.

By 1929, following the Census definition, 9.6 per cent of our 1,500,000 retail stores were chain stores, and they accounted for 20 per cent of the total retail sales. According to the 1933 Census figures, moreover, 9.3 per cent of the stores were chain, accounting for 25 per cent of the total sales. To put it another way, between 1929 and 1933, the number of independent stores declined 2 per cent while the number of chain establishments declined 4 per cent.

[3] Federal Trade Commission, *Chain Stores, Growth and Development of Chain Stores*, Washington, 1932, Table 36, p. 67.

The sales of independents, however, fell off 53 per cent, while those of chains dropped only 36 per cent.

Although the Bureau of the Census has issued retail data for 1935, breakdowns for independent and chain stores are not yet available. It would appear, however, from the evidence before us that independent sales fell off more quickly and dropped farther between 1929 and 1933, than was the case for chains, generally speaking. Taking the grocery trade—grocery and combination

TABLE I

INDEXES OF GROCERY SALES

(Sales by Chains and Independents, 1929 = 100)

YEAR	CHAINS[a]	INDEPENDENTS[b]	TOTAL[b] CHAINS AND INDEPENDENTS
1929	100.0	100.0	100.0
1930	94.4		
1931	87.1		
1932	73.1		
1933	68.8	67.5	68.1
1934	71.7		
1935	74.6	95.3[c]	86.1
1936[d]	76.8		

[a] Source: Bureau of Foreign and Domestic Commerce Monthly Reports on Chain Grocery Store Sales.

[b] Sources: Bureau of the Census: *Fifteenth Census of the United States, 1930, Retail Distribution, Summary for the United States*, Washington, 1933. Bureau of the Census: *Census of American Business: 1933, Retail Distribution Vol. 1, United States Summary: 1933 and Comparisons with 1929*, Washington, May, 1935. Bureau of the Census: *Census of Business: 1935 Retail Distribution Preliminary United States Summary*, Washington, October, 1936.

[c] Source: Bureau of Foreign and Domestic Commerce. Interpolated using 1933 weights.

[d] Nine months.

stores—and interpolating the figures that we have, it would appear that chain sales reached a low in 1933 at 69, using the 1929 figures as 100, and have since increased to 77, for the first nine months of 1936.[4]

No similar data are available for independent stores. Using 1929 Census figures as 100, however, the index figure for 1933 equals 68, or one point lower than the similar figure for the chains.

[4] These figures are based upon data collected monthly from a representative sample by the Bureau of Foreign and Domestic Commerce.

TABLE II

NUMBER OF CHAIN AND INDEPENDENT STORES AND THEIR SALES, BY KIND OF BUSINESS, 1933

RANK	KIND OF BUSINESS	STORES				SALES			
		Number		Percent		Amount of sales (000)		Percent	
		Chain	Independent	Chain	Independent	Chain	Independent	Chain	Independent
1	Variety	5,400	6,572	44.8	54.6	$618,333	$59,699	91.2	8.8
2	Shoe	4,442	13,386	23.6	71.1	196,249	197,345	46.2	46.5
3	Grocery	24,740	137,852	15.1	84.3	811,910	978,897	45.0	54.3
4	Combination grocery and meat	24,924	115,184	17.8	82.1	1,397,090	1,797,021	43.7	56.1
5	Filling station	36,026	134,239	21.1	78.8	543,682	984,867	35.5	64.3
6	Cigar stores	1,713	18,278	8.5	90.6	64,396	123,521	33.9	65.1
7	Drug stores	3,760	53,341	6.4	91.3	267,299	788,568	25.1	74.0
8	Department stores	2,057	1,428	58.2	40.4	605,722	1,708,445	23.9	67.3
9	Women's Ready-to-wear	1,726	15,773	9.7	88.8	134,255	428,482	23.4	74.5
10	Men's and boy's clothing	1,693	17,599	8.7	90.3	107,553	374,205	22.0	76.5
11	Household appliance	1,355	3,926	13.9	40.2	42,669	65,880	21.5	33.2
12	Family clothing	550	5,177	9.5	89.8	37,588	146,744	20.3	79.2
13	Radio stores	207	7,846	2.5	96.1	17,793	94,128	15.6	82.6
14	Restaurants and eating places	3,377	166,596	2.0	97.7	196,800	1,122,882	14.9	84.8
15	Furniture	570	16,728	3.3	96.0	78,418	468,338	14.2	84.6
16	Jewelry stores	191	14,050	1.3	98.2	10,359	163,886	5.9	93.6
17	Motor-vehicle dealers	409	30,219	1.3	98.6	112,703	2,013,692	5.3	94.6
18	Hardware	536	32,234	1.6	98.3	19,894	467,167	4.1	95.6

Source: Bureau of the Census, *Census of American Business, Retail Distribution 1933, Chains and Independents and Other Types of Operation, State Summaries and Eighteen Kinds of Business, Vol. 6*, Washington, 1935, pp. 3 and 4.

Parenthetically, it is the belief of many that the upturn in retail sales started prior to 1933 and, therefore, prior to that of the chains. Assuming that the 1933 ratio between chains and independent sales holds for 1935—an assumption which is probably not strictly correct—the index for independents rose to 95 in 1935, as compared with 75 for chains.

A similar conclusion can be reached when the evidence that is available from the retail drug trade is reviewed. The Department of Commerce estimates that retail drug sales for the first nine months of 1936 were about 8 per cent higher than for the first nine months of 1935. Chain sales, which account for about 25 per cent of the total retail sales, were up about 4 per cent, while those of independents increased slightly more than 9 per cent during the same period.

The relationship of 10.5 chain stores to every 100 independents, or of $35.41 of chain sales for every $100 of independent store sales in 1933 did not hold, naturally, for all kinds of business. Chain variety stores head the list, accounting in that year for 45 per cent of the stores and 91 per cent of the sales. Based upon their proportion of total sales, chain shoe, grocery, and combination grocery and meat stores account for 46, 45, and 44 per cent, respectively, of the total sales in these lines. Fifty-eight per cent of the department stores, which are looked upon as a very successful type of independent store, were chain stores at the close of 1933. At the other extreme, jewelry stores, motor vehicle dealers, and hardware stores are found at the bottom of the list. For all three types of retail outlets, the proportion of chain stores is between 1 and 2 per cent. Chain jewelry stores account for 6 per cent of jewelry sales, chain motor vehicle show rooms for 5 per cent of theirs, while the retail hardware chains produce 4 per cent of total retail hardware sales in 1933.

II

The economic justification of any new institution is that it gets to the ultimate consumer what that consumer wants at the same or lower cost than that of any competing institution. This "cost" can be measured in terms of the price the consumer pays, the quality of the merchandise he buys, and the services extended to

him at the time of or after the purchase. Without question, most students of this subject agree that chains by and large sell at prices which are lower than those of the competing independents. Studies made by Alexander of Columbia, Taylor of North Carolina, E. Z. Palmer of Kentucky, J. L. Palmer of Chicago, and the Federal Trade Commission all point to this conclusion. Depending upon the locality, services extended, and kinds of stores involved, the actual saving reported varies, but all agree that the chain places merchandise in the hands of consumers at a lower out-of-pocket cost than does the independent.

This dollar saving can be brought about only in one or both of two ways: either the chain buys at such low prices that it can undersell its competitors, or it operates more economically. It must be remembered that the large, and many medium-sized, chains serve as both wholesaling and retailing organizations, since the chain buys direct from manufacturers. As a wholesaler, does it buy at prices lower than those of its wholesale competitors? According to the Federal Trade Commission, whose figures stop with 1930, it does. Quoting from their final report: "A distribution of the various customer accounts by percentages of allowances on sales shows that much larger proportions of chain than of wholesale accounts are found in the higher allowance brackets (15 per cent and up)."[5] For the grocery trade, this proportion for chains is almost twice that for wholesalers; for drugs, about half again as large. The surprising fact in this connection may be, however, that some wholesalers, and cooperative chains too, received as large discounts as did some of the chains.

To such a general statement, there are exceptions, of course. This point, however, is not so important as one other. Were these larger discounts granted by manufacturers because the chains were, on the average, much larger than the wholesalers, or were they granted because of the superior bargaining power of the chains? Manufacturers grant lower discounts for both these reasons. Some chains have the capacity to buy in unusually large quantities, considering the particular trade. And it is equally true that chains have forced down the offered price below the

[5] Federal Trade Commission, *Chain Stores, Final Report on the Chain-Store Investigation*, Washington, 1935, p. 59.

cost of manufacturing the merchandise and handling the order as specified by the chain buyer.[6] Legislation, which will be referred to later, has been set in motion in an attempt to hold quantity discounts and allowances in line with costs.

The question of the relative operating expense of chains and independents cannot be answered in such summary form, not because of the lack of statistical evidence but because of the lack of comparability of functions performed. If chains force manufacturers to perform certain functions normally performed by competing wholesalers, without compensating the manufacturers for this extra service, and if the chains fail to perform certain services for the ultimate consumer, thus allowing them to absorb the "cost" of performing them themselves, it is practically impossible to prepare a satisfactory statistical comparison which will mean anything without much interpretation.

Many chains contract for a large quantity of merchandise, receiving a good quantity discount on the basis of their needs for an entire year and then require small frequent shipments and billings to individual stores. Although the cost of making one large sale is less, the actual cost of preparing the shipments, sending them out of the warehouse, billing and collecting may be just as much as, if not more than, the cost of handling the accounts of smaller independent competitors, especially wholesalers who buy in car lots. In the same manner, a consumer may be able to purchase a list of groceries, drugs, or dry goods, in a chain at a lower aggregate price, but if she has to pay cash, take home her purchases herself, and perform other services usually performed by the independent competitors across the street, she is performing services when she buys at the chain that she may not be required to assume when buying from the independent. The Federal Trade Commission collected data on a selected list of grocery and drug items in four cities: Washington, D. C., Memphis, Cincinnati, and Detroit, covering 1929, 1930, or 1931, which indicate clearly, even when allowance is made for discounts received, that chains consistently take a narrower margin than do the competing independent distributors.

Thus, it can be said that on the basis of the latest figures avail-

[6] *Ibid.*

able, chains buy at prices averaging somewhat lower than those paid by competitors, and sell on a narrower margin at lower prices to the ultimate consumer. This statement does not assume, however, that all of the dollar saving of the consumer is net. Taking into consideration the intangible factors, for which we have no measure, it is difficult to say that chains, speaking broadly, pass on merchandise to the consumer at a lower economic cost than do their competitors. Nor can we assume that the same will be true in the future, although it probably has been true in the past.

III

The effects of the social aspects of this question are still more indefinite. Mass distribution, like mass production, has without doubt left more of an impact upon society as a whole than we give it credit for at the present time. This effect, however, is not necessarily adverse any more than change is adverse. It is within this area that the emotions of many have been more active than their reason. Take, for example, the turnover of chain and independent stores, year by year. It has been supposed that the increasing popularity of the chain has forced more and more independents out of business. Some have envisioned the time when the last independent will disappear.

While we still have a paucity of facts on this fundamental subject, it appears that the rate of increase among chain stores was declining long before 1929. The average annual ratio of increase for chain stores reported to the Federal Trade Commission during the period of 1886 to 1930 was 10.8 per cent. For the years 1922 to 1928, this figure declined from 19 to 11 per cent. For 1929 it dropped further to 9 and for the year last reported, 1930, it was 1 per cent. The actual number of net stores added during these later years remained fairly high, although it dropped from 5,662 in 1929 to 731 in 1930, but the ratio declined, possibly the forerunner of a decline in the actual number of stores added, even in normal times.[7] This decline was accounted for not so much by a drop in the number of new stores opened but by the increasing number of old stores that were closed. For 1915, according to the

[7] Federal Trade Commission, *Chain Stores, Growth and Development of Chain Stores*, Washington, 1932, p. 41.

Federal Trade Commission, the proportion of store closings to gross total stores added was 4 per cent. By 1920, this figure rose to 10 per cent; by 1925, 13. Between 1925 and 1926, however, the figure jumped to 27 per cent; rising higher to 35 by 1928 and 46 by 1929. Largely because of the depression in 1930, the proportion of store closings equalled 85 per cent of the total stores added that year.

On the other side, the repetition of the Census of Distribution of 1929 in 1933 and 1935 is bringing to view some evidence, too little unfortunately, that the mortality rate of our independent stores is not so great as some have supposed. Some of the mortality shown in the limited number of studies may be accounted for by the method of defining that term for the practical purposes of using available sources. For example, a store may not die even though it changes its name, because it moves from one address to another, or even because it closes its doors, only to open them up next season. In considering the social question of the turnover of chain and independent stores, further investigation and more normal times may show the number of chain stores leveling off at different points in different trades and localities. They may show that independents are not disappearing with the rapidity that we have been led to believe. In other words, in each trade and territory, we may reach a sort of equilibrium between the two.

A second social implication of the chain concerns absentee ownership. Here, we have a criticism of mass distribution, not chain stores as such. Absentee ownership implies the concentration of wealth which leads to the concentration of power. There is nothing inherently wrong in this concentration *per se*; the wrong may come in the misuse of this power. And with little or no measure of wrong in this case, each group of economic students may have its own ideas. Essentially, this country is democratic in its political and social life. Without much thought on the subject, most of us feel we should be democratic economically as well. Large-scale operation leads us, however, in exactly the opposite direction. The benefits of large-scale production and distribution to the consumer are many. But this consumer who is also a producer must accept in exchange for these benefits as a

consumer, certain restrictions upon his actions as a producer. That is, he may have to tend a machine instead of build one himself. He may have to manage a store instead of operate one. And the consumer may not always benefit from mass production and distribution unless proper restrictions are laid down through regulation.

A third and final social criticism of chain distribution concerns community life. In fact, this point is very closely tied in with the preceding one. It is at this point at which the chains have been weakest. Leaders in each trade have realized that the success of their individual stores is directly dependent upon the future of the communities in which they are located and that the business of any community pays a large share of the cost of civic enterprises. Chain-store operators will come to realize this as they get far enough away from their own organizations to survey them with the eyes of their customers.

IV

Of equal significance with the economic and social position of the chain system of distribution is the question of legislation.[8] As of July 1, 1936, there were laws in twenty-one states levying licensing taxes on retail stores, taxes graduated according to the number of stores operated under one management within the state, with the exception of Louisiana, where the graduation is based upon the number of stores operated under one management in the United States. In all but three of these states, legislation was then in effect, but in three states (California, Louisiana, and Texas) litigation was holding up the operation of the laws. Since that time the California law has been voided by a referendum vote. The graduated licensing tax in eight states has been upheld by various courts ranging all the way from the State District Courts to the United States Supreme Court. Recent United States Supreme Court and State Supreme Court decisions have further indicated the difficulties of making a graduated sales tax constitutional. The Louisiana law enacted in 1934 was voided in a decision handed down by the United States District Court but was later

[8] The author acknowledges the aid of Harry P. Warhurst in the preparation of this part of this paper.

upheld in a three-judge Federal Court. It has been reported that an appeal from this decision will be made to the United States Supreme Court.

Although a number of suits involving state chain store graduated licensing taxes are pending, the picture as presented in July has not been changed either by legislative act or by decisions of the United States Supreme Court. Current interest in chain-store legislation is directed toward the convening of legislatures where chain-store legislation is initiated. Very little legislative activity could be expected in the special sessions of election year, but all types of proposals for regulation of trade may be expected from the general legislative sessions now convening.

The number of states with statutes levying a general tax on retail sales as of July 1, 1936, exceeded those with chain store licensing taxes by one; however, the states included vary somewhat from the former group. As in the previous instance, there has been little change in the status of sales-tax laws since the first of July. The electorate of Oklahoma on July 7 amended the sales tax of that state by raising the rate from 1 per cent to 2 per cent of net sales of tangible personal property. The State of Alabama has enacted sales-tax legislation over the vigorous protest of its retailers. These are the only outstanding changes which have taken place in the past few months. In some cases, notably Kentucky, popular objection to the general sales tax has been so great that a substitute form of taxation has replaced it. This is a sales tax on articles designated as "luxuries." Retailers are now protesting the Kentucky luxury tax. The most recent legislation of this kind is the passage of a 2 per cent tax on sales of so-called luxuries by the Louisiana legislature. Two other states (Maryland and Arizona) have similar laws.

Fair-trade (price maintenance) activities also have been at a standstill until recently. The last act of that nature was enacted in Kentucky, bringing the number of states now having fair-trade laws to sixteen. These laws have now been tested and declared to be constitutional by the United States Supreme Court. Other decisions will be needed fully to disclose the ultimate controls made possible by such legislation. In the case considered by the

United States Supreme Court, a non-signer of the contract was held to be bound by the contract.

The three main provisions of the California law are that:

1. Legal contracts can be made in which the vendor stipulates the seller's selling price, and the buyer assumes the duty of selling the commodity with this stipulation.

2. Trade marked identified commodities which move in fair and open competition can be made the subject of such contracts.

3. Sales made for the purpose of closing out discontinued lines, damaged or deteriorated goods, and court sales are excepted from provisions of this law.

The "Tydings Bill" which was introduced in the United States Congress on January 16, 1936, and passed by the Senate, proposed that the Sherman Anti-Trust Act and the Act creating the Federal Trade Commission be amended in such a way that contracts or agreements prescribing minimum price or other selling conditions for prescribed trade marked goods will clearly be outside the restrictions of the Federal Anti-Trust legislation if they are legal contracts under respective state laws. This bill, it seems, was drawn to eliminate the fear of producers that they would be prosecuted for restraining trade if they operated under the provisions of the Fair-Trade or Price-Maintenance laws, now in force in these fourteen states. The "Tydings Bill" has been reintroduced in the current session of Congress and hearings have been held.

Probably no bill affecting the distribution of goods since the Federal Trade Commission Act has caused as much discussion as the Robinson-Patman Act. In the months since its approval there has been much forecasting, perhaps one should say "guessing," of the effect of this act upon trade. Practically every trade association of any importance in the field of distribution, all of the weekly and monthly economic and news letter services, to say nothing of scores of individuals, have produced voluminous questions, answers, outlines, check sheets, resumes, and analyses of this act, but probably most of these people would agree that the only promise of definite information is the result in connection with complaints now being considered by the Federal Trade Commission under this act.

It has been reported that many large-quantity buyers are now

attempting to protect themselves from prosecution by specially drawn contracts while still gaining the discount privileges formerly enjoyed. There is a strong question as to whether or not they can avoid liability with such contracts, and even though such contracts would free them from prosecution, not many sellers could be expected to shoulder the buyers' responsibility in order that they may give such discounts. Thus, chains find themselves the center or, at least, involved in legislation which, if upheld by the courts, will vitally affect their future.

V

It is difficult enough to say: "This is the position of the chain system of distribution today." It is next to impossible, however, to say what this position will be ten years from now, or even one year from now. Some points, however, seem rather clear.

A definite drive is on, the spearhead of which is the Robinson-Patman Act, to eliminate unfair discounts and allowances to large distributors, including the chains. With this legislation, the emphasis is shifted from the significance of the word "large" to that of "unfair." If the present Act is thrown out by the courts or many vital parts are eliminated by them, other attempts will be made to prohibit by law, "unfair preferences" for large buyers.

That the chain operated at a lower margin at the turn of the present decade does not justify the conclusion that the same situation holds today. The department store started out as a low-cost distributor of shopping goods to the consumer. Today it operates with a high margin, one which has tended higher during the past fifteen years. Perhaps the chain may follow this precedent. There is not much statistical evidence for or against this conclusion except in the reports of the Federal Trade Commission. The average gross margin reported by that body for chains in 26 kinds of businesses was 31 per cent of sales in 1913; 27 per cent in 1919; and ranged from 27 to 29 per cent during the years 1922, 1925, 1927, 1929, and 1930.

The trend in total expenses, however, is definitely upward. In 1913 the ratio of operating expenses to sales was 24 per cent, and by 1919, it had dropped to 20. It rose gradually to 24 per cent in 1930. More remarkable, however, was the tendency for operating

expenses during this period to rise in 21 kinds of businesses, with no trend in five and not a single kind of business showing a tendency downward, according to the Federal Trade Commission. This tendency toward higher expenses and eventually higher margins—net profits cannot continue to decline indefinitely—seems rational in light of the current practice of carrying wider stocks and increasing services. It is my opinion, therefore, that operating costs of chains will continue higher and to this degree lessen the price difference between the chain and the independent.

While this gradual change is taking place, the independent channel of distribution, in my opinion, is reducing its cost in an

TABLE III

PERCENTAGE OF GROSS MARGIN, OPERATING EXPENSES AND NET OPERATING PROFIT OF CHAINS TO SALES IN SPECIFIED YEARS

YEAR	GROSS MARGIN	OPERATING EXPENSES	NET OPERATING PROFIT
	Percent	*Percent*	*Percent*
1913	31.28	24.45	6.83
1919	27.00	20.00	7.00
1922	28.76	22.38	6.38
1925	29.00	23.38	5.62
1927	27.39	22.63	4.76
1928	27.06	22.42	4.64
1929	26.94	22.83	4.11
1930	27.04	24.15	2.89

Source: Federal Trade Commission, *Chain Stores, Sales, Costs, and Profits of Retail Chains*, Washington, 1933, pp. 28, 29, and 31.

effort to meet chain prices more effectively. With the first appreciation of the success of chain methods, the more alert independents began to copy their operating practices and methods. Independents cleaned up the interior and painted up the exterior of their buildings, they freshened up their stocks, bought on a hand-to-mouth basis, improved the appearance of their help, displayed their merchandise more attractively, and reevaluated their services more carefully in the light of the desires of the consumer. In short, they improved the attractiveness of their stores and reduced their operating expenses.

At the same time, groups of retail merchants, particularly those in the grocery and drug trades where chain competition was stiff-

est, joined hands, put up some cash, and by organizing retailer-owned cooperative chains, eliminated any further need of the service wholesaler in the purchase of much of their stock. In this manner they reduced the out-of-pocket cost of wholesaling. Wholesalers, not to be outdone, called their retail customers together and organized wholesaler-controlled or voluntary chains and proceeded to help improve the merchandising activities of these retailers and thus to reduce their operating expenses. In the grocery trade alone, according to the Institute of Food Distribution, as of March, 1936, there were 164 retailer-owned warehouses, owned by 23,604 members and 508 wholesaler-controlled wholesale houses with 77,889 retail members.[9] Not all of these 100,000 retailers have the advantage of all the chain store features; nevertheless, they have more than ever before. Both of these methods, open to the independent retailers in several trades, have done much to further improve the retail operations and in many cases to make it possible for these retailers to buy and sell standard items at competitive prices. Furthermore, in many instances, such an organization has given them a private brand which, in one sense, was the brand of the individual retailer and over which he has exclusive control in his limited retail territory.

Finally, in this connection, chain systems have been training store managers since they opened the first store. In many such organizations, this retail manager is the key man of the organization and has deserved all of the advice showered upon him. With the aid of a manual, daily or weekly calls of a supervisor, and the long experience of responsibility for a store, some of these managers have become unusually good merchants. Gradually, these men have found means of securing some funds or have been forced to some such action by the depression and have set themselves up in business. With the knowledge and experience gained from years of work, in one or more chains, and the desire to succeed as the proprietors of their own stores, these new independent merchants are not only bidding for some of the independent store business but they are in a position to secure some of that formerly going to chains, particularly if the new store is near the chain

[9] American Institute of Food Distribution, *Group Selling by 100,000 Retailers*, New York City, 1936, p. 52.

originally managed by the same man. This new competition of the chain is significant.

Since it is practically impossible to evaluate adequately the legislation affecting chains already on the books of our states and nation, any attempt to anticipate the legislation of the future is out of order. The wave of legislative enactments which started with the first state chain-store law in 1927, it is safe to say, was originally suggested by some interested group of distributors or business men. Groups of business men have asked for and in many cases have been able to secure laws which, they anticipated, would protect their business and increase their net profits. This orgy of national and state legislation is likely to continue, as these same and other groups of business men ask more and more protection from each other.

Legislation of the type we are now seeing passed tends to crystallize present business practices and make them law. Furthermore, it leads to evasion, resulting in higher operating costs. If we could agree that our present distribution policies and methods were perfect, or if we even thought they were as far advanced as many of the policies and methods now in general use in production, such legislation might be in order. With the lack of factual data about marketing, with few if any principles on pricing, with a number of channels of distributing the same product, and with a multiplicity of institutions performing overlapping services, this seems to me to be no time to pass laws which tend to freeze such a chaotic system. True it is that some legislation is needed, but no agreement has been reached yet as to exactly what is needed, and how it should be framed, or administered.

Chain stores are no longer a menace. Their early advantages are disappearing as the ratio of their costs to sales continues to rise and as their independent competition becomes more alert. At some point, an equilibrium will be reached between these two channels of distribution that will be accepted by business, consumers, and the community alike.

The concern of the independent business man today should not be limited to the chain, to legislation that, it is hoped, will hold the chain in check. He should be giving more thought to the effect of this legislation, both passed and proposed, upon his own business, not only for today but for the future.

THE PROBLEM OF TRADE-UNION STRUCTURE IN THE UNITED STATES

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At the time of the writing of this article (January, 1937), the labor movement in the United States faces a grave internal crisis. This crisis has arisen out of the struggle between the American Federation of Labor and a group of powerful unions composing the Committee for Industrial Organization. Basically, the dispute centers on the problem of trade-union structure. More specifically, the conflict revolves about the question of whether the Federation will modify its structure to permit the formation of industrial unions in the mass-production industries.[1] Upon the solution of this question hinges the unity of the labor movement. The purpose of this article is to examine the problem of union structure in terms of the technical organization of American industry, to trace briefly the history of the drive for industrial unionism within the Federation, and to analyze the nature of the present crisis and some of its probable consequences.

I

Clearly, there is no one type of union structure that is superior to all others under all circumstances. Broadly speaking, that organizational structure is "best" that permits a group to function with maximum effectiveness in its struggle to achieve its objectives. The objectives of a group may help to determine its

[1] In this article the terms "craft" and "industrial" union are not subject to rigid definitions. For practical purposes a craft union consists of a group of workers possessing similar or related skills and organized on an inter-industry basis. An industrial union is one that admits all the workers in a particular industry, regardless of skill or craft. The *internal* structure of an industrial union may reflect major craft divisions within the industry. Such a structure may result from considerations of administrative expediency and also from the desire to give some freedom of action to craft groups on problems peculiar to them. In major relations with the employers, however, an industrial union speaks for all of the workers.

organizational form. For example, the syndicalist proposal for the administration of industry through union organizations leads logically to the advocacy of industrial unionism. Great survival value may adhere to union structures that, because of technical or other changes in industry, have lost much of their early validity. Organizational loyalties, long-established relationships with the employers, well-defined machinery for dealing with disputes—these or other factors may enable a union or group of unions to carry on in a changed technical setting. Judicious modifications of structure or procedure may contribute to this end.[2]

Unquestionably, however, the most important influence bearing upon union structure arises out of the technical organization of industry. A secure basis for craft unionism is found in those industries in which the individual skill and craft knowledge of the workers is of predominant importance. If, through the introduction of machinery and new processes, minute subdivision of labor occurs, the basis for craft organization tends to disappear. Occasionally, however, technological specialization results in the creation of new bases for craft unionism. This is strikingly true of the printing industry, in which all workers originally were organized into the Typographical Union. Between 1889 and 1903, the pressmen, bookbinders, stereotypers and electrotypers, and the photoengravers broke away from the parent body and formed independent craft unions. Allied Printing Trades Councils were then set up to control the union label.[3]

Clearly this is an exceptional case. There are many examples of the adverse effects of the introduction of machinery upon unions of skilled craftsmen. One of the most interesting of these relates

[2] The railroad industry, in which craft lines are fairly distinct, is organized on a craft union basis. Even were the industrial form of organization adopted, the present lines would probably partly reappear for administrative purposes. Even so, the weaknesses of craft unionism have prompted numerous proposals for a more highly integrated union structure on the railroads. The movement for integration was especially strong under Warren S. Stone, late president of the Brotherhood of Locomotive Engineers. During recent years one of the principal weaknesses of craft unionism—craft separatism—has been at least partly overcome through the instrumentality of the Railway Labor Executives' Association. This development has enabled the twenty-one standard railroad unions to present a united front to the employers in important wage negotiations during the depression, and to increase their political pressure on Congress.

[3] Selig Perlman and Philip Taft, *History of Labor in the United States, 1896–1932*, p. 356.

to the history of the National Window Glass Workers' Union. This union first appeared in 1880 as a local assembly of the Knights of Labor, with the brave motto of "Never Surrender." In 1908 a number of organizations were united into the National Window Glass Workers' Union. The work in the craft, writes Professor Ware, "was highly skilled, requiring some knowledge of the chemistry of glass, the lung capacity of a prima donna, and the heat-resisting qualities of a stoker."[4] In 1910 the union, which controlled almost every shop in the trade, had a membership of 7,000; thereafter its membership declined steadily, except for a slight upturn during the war years.[5] In 1928 the union that would never surrender ceased to exist.

The tragedy that overtook the window glass workers' union grew out of its refusal to recognize technological changes that were transforming the industry. The introduction of the cylinder blowing machine and other devices undermined the basis of skill upon which the industry had formerly rested. The union, however, refused to recognize the machine or to admit workers in machine plants to membership. Having gained a strategic position in the industry, the skilled workers fought doggedly against the encroachment of unskilled and semi-skilled machine operatives. Not until 1924 did the union decide to admit machine workers to membership, but this belated turn to reality failed to save the organization. "The mistake we made," said the last president of the union," was in clinging to the old guild idea. That has no place in modern industry."[6]

Somewhat similar to the story of the glass workers is that of the cigarmakers. In 1909, the International Cigarmakers' Union had 51,500 members; by 1929 its membership had declined to 12,900.[7] The union that gave Samuel Gompers to the labor movement was slow to appreciate the significance of the cigar-making machine. Consequently, it was not until 1927 that the union abandoned its restrictive membership policy. By this time, more-

[4] Norman J. Ware, *The Labor Movement in the United States, 1860–1895*, p. 191.

[5] Leo Wolman, *Ebb and Flow in Trade Unionism*, pp. 184–185.

[6] "The Passing of the National Window Glass Workers," *Monthly Labor Review*, October, 1929, pp. 1–16.

[7] Wolman, *op. cit.*, pp. 184–185.

over, the nature of the industry had changed so fundamentally that the union faced an exceedingly difficult task in its effort to regain its influence. The small shops of the craftsman era had been replaced by large corporations, and girls employed on the power machines accounted for the bulk of the cigar output. Early acceptance of the machine, plus an aggressive organizing policy, might have spared the union its present dilemma.

We get to the heart of the problem of union structure in the case of the iron and steel industry. Here is a vast, heavily capitalized industry, employing many types of skilled workers and great numbers of semi-skilled operatives and laborers, in which managerial control is highly centralized. Since its defeats in the latter part of the nineteenth century, the Amalgamated Association of Iron, Steel, and Tin Workers has been unable to exercise a significant voice in the industry. It has maintained its existence by holding to a handful of skilled workers (8,900 in 1929), employed largely in the small, independent plants in the industry.

In 1919 a determined effort was made, under the leadership of Foster and Fitzpatrick, to organize steel. Some twenty-four unions coöperated in this endeavor. Each of these unions claimed jurisdiction over a portion of the workers in the steel plants. Had the unionization drive succeeded, the steel workers would have been divided among twenty-four autonomous unions. Instead of collective bargaining between one steel workers' union and the employers, twenty-four unions would have represented the workers. Here would have been the makings of endless jurisdictional disputes and the substitution of craft division for labor solidarity. The craft set-up of the campaign, indeed, is commonly assigned as a major cause for the failure of labor to organize steel at this time.[8]

The half-hearted attempt of the American Federation of Labor to organize the automotive industry in 1925–1927 failed so completely that the effort has been almost forgotten. The story of this enterprise reveals clearly the decisive weaknesses of the craft approach to a mass-production industry. A committee of the 1925 convention of the Metal Trades Department recommended that the automobile workers be organized along industrial lines.

[8] Interchurch World Movement, *Report on the Steel Strike of 1919*, p. 179.

The craft unions involved opposed this suggestions. The committee then suggested that the workers be organized into federal labor unions,[9] and later divided among the appropriate international unions. This proposal was also turned down.

A year later the Metal Trades Department decided to ask the A. F. of L. to undertake the campaign. A resolution to this effect was passed at the 1926 convention of the Federation. Shortly after the convention, seventeen international unions with jurisdictional claims in the industry held a conference to plan the campaign. The conference broke up over the question of the surrender of jurisdictional rights during the organizational drive. At a second conference in March, 1927, at which only nine unions were represented, the decision was reached to organize the workers into federal labor unions. The Federation, however, promised to transfer the workers thus organized to the various international unions as rapidly as possible. Under this plan some effort at organization was made, but the campaign was soon abandoned.[10]

The window glass workers and the cigarmakers provide examples of old, well-established craft unions that failed to adapt their union structures to the changed technical environment in which they had to function. In the abortive organizing campaigns among the steel workers (1919) and the automobile workers (1925–1927), an attempt was made to apply a union structure that was inappropriate to the nature of the work in the industries involved.[11] All four cases reveal plainly the relation between industrial technique and the form of union organization.

Since the formation of the American Federation of Labor in the 1880's, the character of American industry has changed decisively.

[9] In its unionizing activity, the Federation has frequently organized workers into "local trade and federal labor unions." These local unions are directly affiliated with the Federation until the workers in them are assigned to existing national or international unions. In hitherto unorganized fields, in which a number of such locals exist, new national unions may be formed.

[10] Lewis L. Lorwin, *The American Federation of Labor*, pp. 244–248.

[11] The success of unionism is not, of course, entirely bound up with the choice of an appropriate union structure. There are many other factors which help to determine the outcome of an organizing campaign, or the maintenance of the stability of existing union organizations. But plainly one of the prerequisites for success or for stability is the use of union structures which are conducive to the achievement of solidarity and power in the industries involved.

This is seen in the rise of new industries, such as automobiles, rubber, aluminum, and radio, which almost from the beginning have been mass production in character. Old industries, such as cigarmaking and to some extent iron and steel, have been revolutionized through the introduction of new machines and processes and the elaboration of new forms of business organization. Even in the building industry, one of the traditional homes of the skilled craftsman, technical changes have usurped skill in many crafts.[12] The skilled craftsman, of course, has not disappeared; indeed, modern industry has given rise to many new types of skill. But the craftsman of today functions in a vastly different setting from the craftsman of yesterday, and he is relatively less important.

With the shift of power to the mass-production industries, the industrial area that lends itself to craft-union organization has narrowed. The demand for industrial unionism, therefore, has become insistent. One of the clearest statements of the case for industrial unionism was made by William Green in 1917. "Summing up the situation," wrote Green, then secretary-treasurer of the United Mine Workers, "some advantages resulting from an industrial form of organization, are the reduction of opportunities or causes for jurisdictional disputes; the concentration of economic strength; the blending into harmonious coöperation of all men employed in industry and the advance and protection of the interests of the unskilled laborer in the same proportion as that of the skilled worker."[13]

II

The thirteen national unions that came together in 1886 to form the American Federation of Labor were primarily interested in the establishment of a national trade-union center that would protect them against encroachment on their membership by the vigorously growing Knights of Labor. The unions of cigarmakers, iron moulders, typographers, granite cutters, carpenters, and others that united to form the Federation faced annihilation as independent entities during the hectic expansion period of the Knights between 1884 and 1886. After the latter year the power of the

[12] William Haber, *Industrial Relations in the Building Industry.*

[13] *American Labor Yearbook*, 1917–1918, p. 99.

Knights declined swiftly, while the Federation forged slowly ahead. Surviving the great depression of the 'nineties, the Federation by 1897 had rooted itself firmly in the American scene.

Scarcely had the Federation achieved a measure of stability than the struggle over the form of organization began. The nature of this struggle cannot be fully appreciated unless the structure of the A. F. of L. itself is clearly understood. The Federation is the source of charters that define the jurisdiction of the national and international unions affiliated with it. Having gained its charter, a union becomes a self-determining unit on a national scale, and attempts to exercise sovereignty over all of the workers, wherever employed, who come under its jurisdiction. "Craft autonomy" is the leading principle in the government of the Federation. Certainly the most important internal function of the Federation has been to preserve the jurisdictional rights of its affiliated unions. Hence the Federation, dominated by craft unionists, has frowned upon any policy that would jeopardize the "principle" of craft unionism.[14]

The most important declaration on the matter was made at the 1901 convention of the Federation at Scranton, Pennsylvania. In the famous Scranton Declaration, the principle of craft autonomy was clearly affirmed. Recognition was given, however, to highly exceptional cases in which all workers should be enrolled in the "paramount" organization in the industry. (By this resolution the United Mine Workers' Union was permitted to retain the craftsmen employed about the mines who properly came under other jurisdictions.) The resolution also suggested that the alliance of kindred crafts might be desirable, and urged consideration of the possibility of amalgamations.[15]

The issue was by no means settled, however. An increasing

[14] In practice the Federation has departed frequently from this principle. Perlman and Taft, *op. cit.*, p. 362, write: "If the Federation repeatedly showed itself complacent to the practical departures from the principle of the inviolability of chartered craft unions, when under pressure from strong craft unions, or, as in the case of the carmen, in its eagerness for new acquisitions—matters were different when the attack on craft autonomy came from avowed advocates of industrial unionism. Then it became a matter of principle rather than of expediency and adjustment, and the Federation, if it yielded at all, did so only in the last extremity."

[15] A. F. of L., *Proceedings*, 1901, p. 240.

number of jurisdictional disputes between unions within the Federation and the growing importance of highly developed machine industry produced a sharp reaction to the principle of craft unionism. In 1903 the first resolution on industrial unionism was introduced at an A. F. of L. convention. After reciting the weaknesses of craft organization, the resolution proposed that "the convention appoint a committee whose duty it shall be to study the situation and report to the next convention a plan by which the trade unions can be grouped together on industrial lines, thus forcing contending factions into agreement with each other and promoting the solidarity of labor."[16] This was the first of a long series of similar resolutions that aimed to commit the Federation to the principle of industrial unionism. By 1912 the proponents of industrialism were able to muster approximately one-third of the votes on the convention floor.[17]

Gompers and the craft union majority vigorously resisted the assault of the industrial unionists. They possessed a convenient ideological weapon in the fact that the forces of industrial unionism were captained by socialists.[18] They contended, moreover, that the growth of the Federation could be attributed to the use of the craft form of organization. Finally, they argued that the Federation was flexible enough to permit necessary adjustments in organizational structure, and pointed specifically to the possibilities of voluntary amalgamations,[19] and to the creation of depart-

[16] *Ibid.*, 1903, p. 108.

[17] *Ibid.*, 1912, pp. 243, 309–312.

[18] It was the brilliant but vitriolic Daniel De Leon, leader of the Socialist Labor Party, who clearly developed the idea of industrial unionism, and who gave to this idea a revolutionary content. Thus, De Leon wrote in the *Daily People*, Jan. 20, 1913: "Industrial unionism is the Socialist Republic in the making; and the goal once reached, the industrial union is the Socialist Republic in operation." In 1895, De Leon launched the Socialist Trade and Labor Alliance as a rival to the Federation; this organization later merged with the Industrial Workers of the World. Thus Gompers and his followers were able to identify the cardinal sin of dualism with socialism. The socialists within the Federation, of course, were members of the Socialist Party, formed partly as a result of a split in the ranks of the Socialist Labor Party over the dual union issue. By 1912 the socialists were influential in a number of powerful unions, including the miners, brewers, and printers, and constituted a sort of official opposition in the conventions of the Federation. Their advocacy of industrial unionism was not for the purpose of splitting the Federation, but, as they saw it, to increase its power.

[19] Amalgamations have been fairly numerous. See Lorwin, *op. cit.*, pp. 489–491, for a list of those effected between 1900 and 1930.

ments (building, metal trades, etc.) to serve the common interests of independent craft unions. Above all, action by the Federation to promote industrial unionism would violate the principle of craft autonomy.

Here the debate largely rested. The issue was not a leading one during the war years, due partly to the decline in strength of the socialist forces and to the magnitude of other problems. During the years immediately following the war there was renewed interest in the question, but the "return to normalcy," following the deflation of the labor movement (1921–1923), produced a tired and dispirited movement, which, in terms of membership, scarcely held its own during the prosperity era. It was not until a new set of forces during 1933–1935 gave a powerful stimulus to unionism that the issue reappeared in a slightly different but much sharper form.

III

The organized labor movement at the beginning at 1933 had reached a low ebb. A total of 2,074,800 members had been lost since the peak in 1920; even during the prosperous years, 1923–1929, a decrease of 179,400 members had occurred, and the depression had taken a toll of almost half a million. Total trade union membership in 1933 stood at 2,973,000; of this number, 2,317,500 were in unions affiliated with the A. F. of L.[20]

This downward trend was reversed about the middle of 1933. Unquestionably, a primary reason for this fact was the encouragement given to collective bargaining by the government in its recovery program. This encouragement was embodied, specifically, in the celebrated Section 7 (a) of the National Recovery Act, which became effective on June 16, 1933. A month later the Federation reported that the largest organizing machine in its history was in operation.[21]

Under the impetus of this organizational drive, union membership increased rapidly. Such unions as the United Mine Workers, International Ladies' Garment Workers, and the Amalgamated Clothing Workers, which were quick to seize their opportunities,

[20] Wolman, *op. cit.*, pp. 33–34, 138–139.
[21] New York *Times*, July 16, 1933.

made astonishing gains. Many other unions added less spectacularly to their membership rolls. The workers in many hitherto unorganized fields showed great interest in unionism. This was especially true in such mass-production industries as automobiles, rubber, steel, and oil. The Federation, for the most part, organized these workers into federal labor unions,[22] pending the creation of new national or international unions, or the distribution of the workers among existing national unions. Between August 31, 1932, and August 31, 1933, the number of such local unions increased from 307 to 673, and by August 31, 1934, the number had reached 1,788.

In some of the new fields into which unionism penetrated, the question of the jurisdiction of existing national and international unions was of little or no importance. This was true, for example, of the unions that arose in various parts of the country in agriculture. Especially in the mass-production manufacturing industries, however, the jurisdictional issue was of primary significance, for in each of these industries numerous craft unions claimed a portion of the workers. The essential question was whether the craft unions would waive their jurisdictional rights over workers in the mass-production industries. This would permit the combination of the new federal labor unions (in automobiles, rubber, radio, etc.) into new national unions on an industrial basis. Or would the craft unions insist upon dividing the workers in the federal labor unions on a craft basis, leaving the machine tenders and laborers to form such new national unions as might emerge? The industrial union issue cut across the conventions of the A. F. of L. from 1933 to 1936, and the issue has not yet been finally decided.

The 1933 convention was held in October. At that time the organizational drive was still gathering momentum. John P. Frey, for the Metal Trades Department, offered a resolution to the effect that the Federation "take such immediate action as is necessary to prevent the inclusion in federal labor unions of any mechanic over whom international unions have jurisdiction through the charter rights given by the A. F. of L."[23] There were both majority and minority reports on this resolution, whereupon Mr.

[22] See note 9.

[23] A. F. of L., *Proceedings*, 1933, p. 500.

Frey moved that both reports be referred to the Executive Council of the Federation. The convention passed this motion, and there the matter rested. The temper of the convention was revealed, however, by its vote ordering the Brewery Workers, an industrial union, to surrender jurisdiction over truck drivers, operating engineers, and firemen and oilers to the three unions claiming jurisdiction over these types of workers.[24]

The industrial-union issue dominated the 1934 convention of the Federation. No less than fourteen resolutions on union structure were introduced, and the resolutions committee worked for six days on its report. This report seemed to many observers to mark the beginning of a new era in the history of the Federation. The report stated that, although the jurisdiction of craft unions must be protected, the development of American industry had created new conditions that must be met. Then came the heart of the report: "To meet this new condition the Executive Council is directed to issue charters for National or International Unions in the automotive, cement, aluminum and such other mass-production and miscellaneous industries as in the judgment of the Executive Council may be necessary to meet the situation."[25] The convention adopted this report unanimously. There was great enthusiasm. The report contained many ambiguities, however, and the debate clearly indicated that the craftists were in no mood to surrender their jurisdictional rights.[26] Its interpretation, moreover, was in the hands of an Executive Council dominated by the craft union forces.

In the fall of 1935, the Executive Council of the Federation, under the terms of the 1934 convention action, issued charters to automobile and rubber workers. Immediately a storm of protest arose against the limits placed on the jurisdiction of the new unions. In the case of the automobile workers, the charter em-

[24] *Ibid.*, pp. 317–353. This dispute in one form or another has lasted for over two decades. In June, 1907, the Executive Council revoked the charter of the Brewery Workers for refusing to relinquish the engineers and firemen; this action aroused such a storm of protest that the charter was restored at the convention of that year. Later the jurisdiction of the brewery workers over the engineers and firemen was formally recognized. With prohibition, the union fell upon evil days. With repeal, however, the membership of the union again increased and the jurisdictional dispute began anew.

[25] A. F. of L., *Proceedings*, 1934, p. 587.

[26] *Ibid.*, pp. 586–598.

braced "all employees directly engaged in the manufacturing of parts (not including tools, dies, and machinery) and assembling of those parts into completed automobiles, but not including job or contract shops manufacturing parts or any other employee engaged in said automobile production plants."[27] This charter obviously failed by a wide margin to cover all of the workers in the industry. Thus again in the 1935 convention of the Federation the industrial union issue held the center of the stage.

IV

At the 1935 convention, twenty-one resolutions on industrial unionism were introduced. Twelve of these resolutions were general in scope, and called forth both majority and minority reports from the resolutions committee. In these reports issues that at the 1934 convention were partly evaded were now squarely met.

The majority report recommended that the 1934 declaration on industrial unionism be reaffirmed. This declaration, according to the majority, provided that workers classified as "mass-production employees" should be granted charters in mass-production industries, and drew a clear distinction between craftsmen and mass-production workers. According to the majority report, the convention could not have done otherwise than "reaffirm the rights and the jurisdiction given to the National and International Unions which have been chartered by the American Federation of Labor."[28]

The minority report pointed to the many changes in industrial methods since the date at which many charters to craft unions had been issued. "This makes it apparent," argued the minority, "that jurisdiction over these new classes of work could not have been anticipated and included in the jurisdictional outlines of charters issued to National and International Unions at a time when the work performed by these millions of industrial workers did not exist." The minority believed that industrial organization was imperative in (1) "the great mass-production industries

[27] *Ibid.*, 1935, p. 95.
[28] *Ibid.*, pp. 521–522.

and those in which the workers are composite mechanics, specialized and engaged upon classes of work which do not fully qualify them for craft union membership;" and (2) "in those industries *where the work performed by a majority of the workers is of such nature that it might fall within the jurisdictional claim of more than one craft union, or no established craft union. . . .*"[29]

In simple terms, the minority report, signed by six of the fifteen members of the committee, asked the craft unions to surrender jurisdiction (which in most cases was only a paper jurisdiction) over workers in the mass-production industries. In those industries in which the craft unions were able to function successfully, jurisdiction was to remain undisturbed.[30] The minority report was rejected by the convention by a vote of 10,933 to 18,024.

Shortly after the convention, John L. Lewis with a group of associates formed the Committee for Industrial Organization. The original membership was drawn from the International Typographical Union, International Ladies' Garment Workers' Union, Amalgamated Clothing Workers, United Textile Workers, Oil Field, Gas Well and Refinery Workers, Cap and Millinery Department of the United Hatters, Cap, and Millinery Workers, Mine, Mill and Smelter Workers, and the United Mine Workers. Later additions were from the Amalgamated Association of Iron, Steel and Tin Workers, Federation of Flat Glass Workers, United Automobile Workers, United Rubber Workers, American Newspaper Guild, United Electrical and Radio Workers, and the Industrial Union of Marine and Shipyard Workers. Several of these are independent unions, never affiliated with the A. F. of L.

In the beginning, the Committee seemed designed to function primarily as a propaganda group for industrial unionism. Almost immediately, however, requests for organizing assistance began

[29] *Ibid.*, pp. 523–524 (my italics).

[30] In previous drives for industrial unionism within the Federation, emphasis had been placed on the amalgamation of existing craft unions into industrial unions. The minority at the 1935 convention made no fetish of industrial unionism. The validity of craft unionism under certain circumstances was fully recognized. One of the leaders of the minority, Charles P. Howard, is president of an important craft union. The minority pleaded only for the establishment of industrial unions in those industries which the crafts had shown no capacity to organize.

to pour in from workers in many industries. Failing to stimulate the A. F. of L. to embark upon an organizing campaign in the steel industry (such a campaign had been voted in the 1934 convention), the C. I. O., through the Steel Workers' Organizing Committee, entered the field alone in May, 1936. The Committee has also given substantial assistance to unions in automobiles, rubber, shipbuilding, glass, and radio.

The charge of dualism was hurled at the C. I. O. upon its formation. This charge was denied, the C. I. O. leaders contending that they wished to strengthen the Federation rather than to set up an organization dual to it. The Executive Council of the Federation called for the liquidation of the C. I. O.; upon the refusal of the C. I. O. to disband, the Council suspended ten international unions, with a membership of about one million, from the Federation.[31] Since the officers of the International Typographical Union, Hatters, Cap and Millinery Workers, and the American Newspaper Guild had joined the C. I. O. as individuals, these unions were not included in the suspension order. There being no provision in the constitution of the Federation for suspension under the conditions existing, the Executive Council acted under a special ruling of its own. The action of the Council was vigorously attacked as unconstitutional by the C. I. O., and as a device to keep the C. I. O. unions off the convention floor.[32]

At the 1936 convention of the Federation in November, at which the suspended unions were not represented, the action of the Executive Council was upheld. For the time being, the suspension of the C. I. O. unions was maintained. The work of a special committee appointed to discover a basis for the settlement of the dispute was ordered continued. Finally, the Executive Council was authorized to call a special convention if "a more drastic procedure" seemed necessary.[33] This is the status of the dispute at this writing.

[31] New York *Times*, Sept. 6, 1936.

[32] Since a two-thirds vote of the convention is necessary to expel an international union, the expulsion of the C. I. O. unions, which have more than one-third of the voting strength of the Federation, is impossible if they are represented. Thus, by its suspension order, the Executive Council prepared the way for expulsion if unity is not achieved between the industrial and craft union forces.

[33] New York *Times*, Nov. 24, 1936.

V

Clearly the struggle between the industrial and craft-union forces, which threatens to split the labor movement, is no vulgar struggle for personal power. It represents the culmination of a long effort to revise the structure of our dominant trade-union center, so as to make it a more flexible instrument of labor advance. The necessity for such revision is found in the changed and changing structure of American industry.

The consequences of the present situation depend partly upon the outcome of the efforts of the C. I. O. to establish strong unions in the mass-production industries. Failure speedily to build relatively large and stable unions in the steel, automotive, and other highly mechanized industries would greatly weaken the cohesiveness of the industrial-union forces, and might lead to the disintegration of the movement. In this case no profound modification in the structure of the trade-union movement would result, at least for the present.

The situation will be entirely different if the C. I. O. meets with a measure of success in its organizing campaigns. In this case, the Federation, in order to achieve unity, undoubtedly will be forced to revise its structure to permit the free functioning of industrial unions in the mass-production industries. Unity is conceivable on no other basis. This, in turn, would mean a decisive shift in power within the Federation; the power of the craft unions, and of the craft-union mentality, would be sharply diminished.

If some basis for unity is not found, the C. I. O. may emerge definitely as a rival trade-union center. Should this happen, the Federation in all probability would lose additional unions to its rival—bakery workers, brewery workers, teachers, Pacific Coast marine workers, furriers, pressmen, quarry workers, meat cutters, lumber workers, and perhaps others. The Federation would then find itself with a membership of something under two million and with a relatively restricted field for effective expansion. There unquestionably would be war between the two groups of unions. The state federations of labor and the city central bodies, of course, would be disrupted. In time, since war is always expensive, the two organizations would probably develop well-defined, although

unofficial, spheres of influence and live in peace except for border incidents. A crisis might unite them.

The construction of strong unions in the mass-production industries, regardless of whether these unions come within the Federation or function as part of a new union center, would have additional consequences. Craft unions tend to rely largely upon their economic strength to win concessions within the framework of existing economic institutions. They develop very limited social programs, designed primarily to enhance their control over the jobs in their crafts.[34] Industrial unions, because they are likely to face larger and more complex problems, and because their bargaining strength in many situations may not be as great, tend to take a greater interest in techniques for the social control of industry. Hence the development of industrial unionism in America may lead to independent labor political action, and to the elaboration of a comprehensive program for the basic alteration of the present economic system.

[34] Selig Perlman's *A Theory of the Labor Movement* represents basically a rationalization of the craft "mentality."

GRAPHIC PRESENTATION OF TREND DATA

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I

The analysis of time series frequently involves the comparison of one series that has a pronounced trend with another that has either no trend or no well-defined trend. The usual procedure in such cases is to compute the trend of the former series and express it in the form of percentages of trend. If only a graphic comparison is desired this procedure is unnecessarily laborious, and it has the further disadvantage of making difficult, if not impossible, the precise reading of the trend data from the graph. The writers have found that in their work the type of paper described below is particularly useful for the graphic presentation of trend and non-trend data.

In Chart I we show graphically the variation in industrial production, with a 3 per cent trend, and wholesale prices, with no trend. These data are given in Table I. The solid guide lines of the accompanying chart are similar to those on the usual type of chart. Against these lines are plotted the non-trend data. In this illustration we have used the United States Bureau of Labor Statistics index number of wholesale prices, reduced to a quarterly basis.

The dotted guide lines on the chart are isorropic lines which represent the present value of a given sum of money at a specific rate of interest due after different periods of time. In this illustration, the vertical rulings are such as to make the rate of interest 3 per cent. If the reader will follow from left to right the dotted curved line which starts at 100, he will notice that at the end of five years its value, as read from the solid horizontal lines, is about 86. A compound interest table tells us that at 3 per cent interest, the present value of $100 due at the end of five years is $86.26 (or

it may be said that $86.26 grows to $100 in five years at a 3 per cent compound rate of interest). The ruled lines may also be interpreted in another way: that is, $100 at 3 per cent compound interest grows to $115.92 at the end of five years. If now the reader will follow the horizontal solid line which is labeled 100 to the point where it intersects the vertical line marking the end of

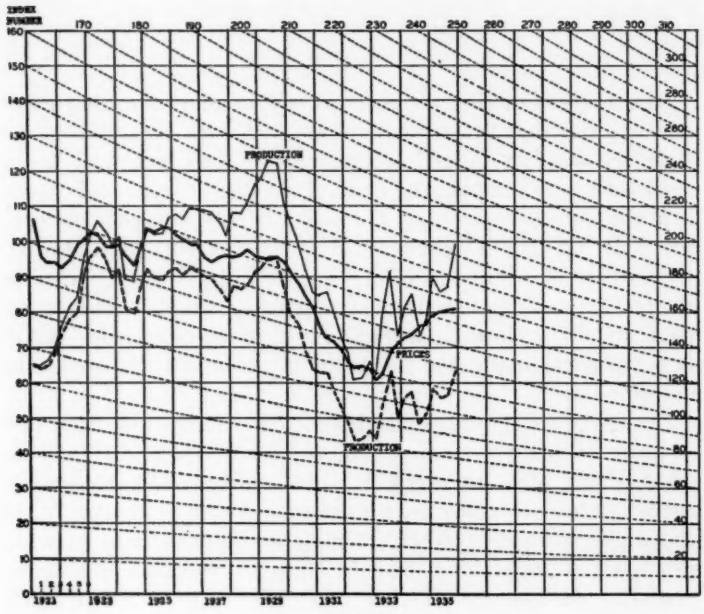

CHART I

WHOLESALE PRICES AND INDUSTRIAL PRODUCTION

(Dotted line representing industrial production is plotted against dotted isorropic lines)

the fifth year, he will see that this point lies between the dotted lines which start at 110 and 120 respectively. More specifically, he will see that its value, as judged by its position between these lines, is about 116. The trend data are plotted against these dotted isorropic lines.

In Chart I the trend data used are the index numbers of industrial

TABLE I

WHOLESALE PRICES AND INDUSTRIAL PRODUCTION, 1921 TO 1935

YEAR	QUARTER	PRICES[a]	PRODUCTION[b]	YEAR	QUARTER	PRICES[a]	PRODUCTION[b]
1921	1st	107.1	65.7	1929	1st	95.8	118.3
	2nd	96.2	65.0		2nd	95.1	122.7
	3rd	93.4	66.7		3rd	96.3	122.0
	4th	93.7	70.6		4th	94.0	110.3
1922	1st	92.4	76.3	1930	1st	91.4	105.3
	2nd	95.2	81.0		2nd	88.5	101.3
	3rd	99.1	84.3		3rd	84.4	91.0
	4th	100.3	96.7		4th	81.3	86.0
1923	1st	103.3	101.3	1931	1st	77.0	85.3
	2nd	102.0	106.0		2nd	73.4	86.0
	3rd	98.6	102.3		3rd	71.8	78.7
	4th	98.6	98.0		4th	69.7	73.3
1924	1st	99.3	100.7	1932	1st	66.5	69.3
	2nd	96.0	89.7		2nd	64.6	60.7
	3rd	93.6	89.0		3rd	65.0	61.3
	4th	99.6	97.7		4th	63.8	66.0
1925	1st	103.7	104.0	1933	1st	60.3	62.3
	2nd	102.2	102.0		2nd	62.7	78.3
	3rd	103.9	102.3		3rd	69.7	91.7
	4th	103.8	106.7		4th	71.0	74.3
1926	1st	101.9	108.3	1934	1st	73.2	81.0
	2nd	100.4	107.0		2nd	73.9	85.3
	3rd	99.4	109.7		3rd	76.3	73.3
	4th	98.6	109.3		4th	76.6	78.3
1927	1st	95.7	108.7	1935	1st	79.2	89.3
	2nd	94.1	108.0		2nd	80.0	85.7
	3rd	95.3	105.3		3rd	80.2	87.7
	4th	96.4	101.7		4th	80.7	99.0
1928	1st	95.9	108.0				
	2nd	96.7	108.0				
	3rd	97.9	110.7				
	4th	96.1	116.7				

[a] Bureau of Labor Statistics index number of wholesale prices, 1926 = 100.

[b] Federal Reserve Board index number of industrial production, adjusted for seasons, 1923–1925 = 100.

production of the Board of Governors of the Federal Reserve System, also reduced to a quarterly basis. The thin solid line shows the series as plotted on the usual charts, against the solid horizontal guide lines. The heavy dotted line shows the series as plotted on trend paper, against the dotted isorropic lines. Thus, the first quarter of 1925 stands at 104, and is therefore plotted about four-tenths of the distance upward from the dotted line representing 100 towards that representing 110.

II

The type of paper we have developed for graphic presentation of trend data is designed to eliminate automatically regular geometric growth. It is probable that most important economic series in common use show this type of growth. The comprehensive statistical data that Mr. Carl Snyder has collected and analyzed on commercial and industrial development in the United States and in other countries are remarkable for their constant rate of growth over long periods. In utilizing such data for the study of cyclical fluctuations, trend paper may be very helpful, for by eliminating automatically the secular trend, the residual variations are obviously almost entirely cyclical and fortuitous.

In considering a series of slow growth over a short period, the elimination of the secular trend is not always of great importance, and the helpful effect of the use of trend paper is not, therefore, readily apparent. Its usefulness is more evident in considering a series of slow growth over a long period or one of rapid growth in a short period. For example, by the use of trend paper it is possible to show graphically the close relationship between the monetary gold supply and wholesale prices, the normal 2.8 per cent annual growth in monetary gold that Cassel has calculated being eliminated automatically. Similarly, such series as rayon production and automobile production, in which the rate of growth is unusually large, require the elimination of the secular trend in studies covering even moderately short periods. Trend paper lends itself easily to such uses.

A difficulty that will frequently occur is a change in the rate of growth of a series. This is fairly common in important economic series of recent origin, for there seems to be a tendency for growth

to proceed slowly in the beginning, to gain momentum and to continue at a rapid rate for a time, and finally to revert to a rather steady rate of growth in the mature period of the series. Such changes in trend can be allowed for in charting the series by using different rates of growth in different periods. In Chart II we show graphically the variation in wholesale prices, no trend, and in

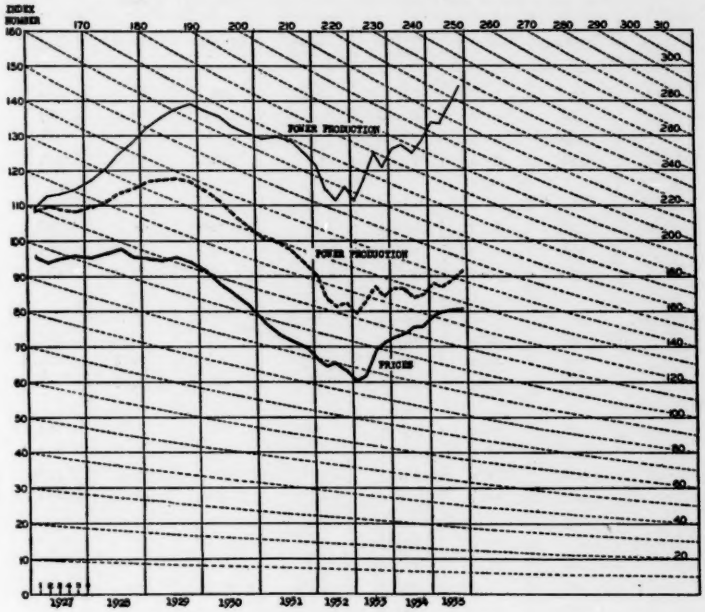

CHART II

WHOLESALE PRICES AND ELECTRIC POWER PRODUCTION

(Dotted line representing power production is plotted against dotted isorropic lines)

electric power production, with a 6 per cent trend for the earlier period and a 4 per cent trend for the later period. Data are in Table II.

In this chart the paper is divided into spaces allowing for a 6 per cent trend (as explained in Part III, below) for the years from 1927 to 1931, and for a 4 per cent trend in the years from 1932 to 1935.

The United States Bureau of Labor Statistics index number of wholesale prices, reduced to a quarterly basis, is plotted as the heavy solid line against the solid horizontal guide lines. The data on electric power production, in the form of an index number,

TABLE II

WHOLESALE PRICES AND ELECTRIC POWER PRODUCTION, 1927 TO 1935

YEAR	QUARTER	PRICES[a]	PRODUCTION[b]	YEAR	QUARTER	PRICES[a]	PRODUCTION[b]
1927	1st	95.7	109.8	1932	1st	66.5	121.6
	2nd	94.1	112.4		2nd	64.6	113.9
	3rd	95.3	112.8		3rd	65.0	112.0
	4th	96.4	113.9		4th	63.8	115.5
1928	1st	95.9	117.6	1933	1st	60.3	111.7
	2nd	96.7	120.1		2nd	62.7	117.9
	3rd	97.9	124.5		3rd	69.7	125.5
	4th	96.1	128.2		4th	71.0	121.9
1929	1st	95.8	132.4	1934	1st	73.2	126.9
	2nd	95.1	135.4		2nd	73.9	127.9
	3rd	96.3	137.9		3rd	76.3	125.4
	4th	94.0	138.8		4th	76.6	128.9
1930	1st	91.4	137.3	1935	1st	79.2	134.2
	2nd	88.5	136.1		2nd	80.0	134.1
	3rd	84.4	132.7		3rd	80.2	139.0
	4th	81.3	130.9		4th	80.7	144.1
1931	1st	77.0	129.3				
	2nd	73.4	129.9				
	3rd	71.8	128.6				
	4th	69.7	125.4				

[a] Bureau of Labor Statistics index number of wholesale prices, 1926 = 100.
[b] Standard Statistics Base Book, 1926 = 100.

also reduced to a quarterly basis, are plotted on the trend paper as the heavy dotted line, the points being determined relative to the dotted isorropic lines. The thin solid line shows the same series on electric power production as plotted on the usual charts, against the solid horizontal guide lines.

III

It is clear, of course, that the same trend paper may be used regardless of the rate of growth of the series to be charted. This particular paper accommodates the number of years it takes to double money at any rate of interest. Consequently, the rate of growth chosen determines the number of spaces along the horizontal axis, and therefore their width on the paper. The following procedure will enable one roughly to determine the trend rate for exploratory purposes. First, plot the data on ordinary semi-logarithmic paper. Next, draw a straight line trend through the plotted data by inspection. Finally, discover the increment in

TABLE III

SPACES ON HORIZONTAL SCALE OF TREND PAPER REQUIRED FOR SPECIFIED TREND RATES
(Years required to double money at specified rates of interest)

ANNUAL RATE OF GROWTH (PERCENT)	NUMBER OF ANNUAL SPACES	ANNUAL RATE OF GROWTH (PERCENT)	NUMBER OF ANNUAL SPACES
½	139.0	4½	15.7
1	69.7	5	14.2
1½	46.6	6	11.9
2	35.0	7	10.2
2½	28.1	8	9.01
3	23.4	9	8.04
3½	20.1	10	7.27
4	17.7	12	6.12

the trend during one year from the logarithmic scale. Thus, suppose the value one year after the line crosses the 10 value on the logarithmic scale to be about 10.7, the trend rate is 7 per cent. A more accurate method is to measure the trend increment over a somewhat longer period, say, 10 years, and solve for r by the formula $P_n = P_o(1 + r)^n$ where P_n is the amount of P_o at the end of n years at r rate of interest. This equation can easily be solved by logarithms by putting it in this form:

$$\text{Log}\,(1 + r) = \frac{\log P_n - \log P_o}{n}$$

In the lower left corner of the paper is indicated the spacing required for each rate of interest from 1 per cent to 6 per cent.

Thus, in Chart I, the first vertical guide line runs through the guide marked 3. There are 23.4 spaces of this width on this paper, since it takes 23.4 years for money to double at 3 per cent, compounded.[1]

In similar fashion the spacing for any desired number of years may be determined. Table III indicates the number of equal annual spaces into which the paper should be divided for different rates of growth. For very precise work, it is well to lay off the spaces with a divider, or by means of a ruler laid diagonally across the paper, rather than to rely on the first year spacing indicated on the trend paper, since errors in spacing will, of course, be cumulative.

IV

Three technical points concerning the use of this paper may now be given. First, if the paper is not large enough to cover the desired number of years, a second sheet can be pasted to the right edge of the first. This will bring the 100 isorropic line of the second sheet even with the 200 isorropic line marked on the right of the first sheet, etc. In other words, the 100 line of the second sheet now becomes the 200 line of the combined sheets. The odd valued lines, of course, drop out on the second sheet. Second, if the numbers indicated at the margin of the paper are not suited to the data at hand, each such number may be multiplied by a constant which will produce the desired results. This adjustment is the same as for semi-logarithmic paper. Third, if the trend is negative, the time scale must run from right to left.

The trend series which is plotted against the dotted guide lines may be thought of as the graphic equivalent on the usual chart of dividing the original data by a series which represents the compound amount of 1 at the rate of interest specified. To illustrate: on the first chart industrial production during the first quarter of 1925 stood at 104. The compound amount of 1 at 3 per cent in-

[1] This is computed by the use of the equation $P_n = P_o(1 + r)^n$, where P_n is the amount of P_o at the end of n years at r rate of interest. Thus, $2 = 1(1.03)^n$ may be written $\log 2 = n \log 1.03$, and $n = \frac{.301030}{.012837} = 23.4$.

terest at the end of four[2] years is 1.1255. Dividing 104 by 1.1255 we obtain 92.4. The point plotted for this quarter appears from the chart to be approximately this value measured relative to the horizontal guide lines.

It should be apparent that the principle involved in this type of paper can be applied without difficulty to straight line trends. In this case the isorropic lines become straight and parallel. This is also true if a compound interest trend is used on semi-logarithmic trend paper. The interpretation in this case is the same except that the relative rather than the absolute changes of the deflated values are shown.

The chief advantage of this type of paper is that it enables a graphic comparison to be made between a trend series and a non-trend series without eliminating the trend mathematically or visually. It is therefore especially useful in preliminary or exploratory work. Furthermore, one can read from the chart the approximate values of the original data. Thus, for example, by its relationship to the dotted guide lines in the first chart, industrial production for the first quarter of 1925 can be seen to be about 104. There are, however, some limitations to the use of this paper. Accurate plotting is more difficult than on the usual graph paper. Plotting of monthly data is laborious, since vertical guide lines must be supplied, unless specialized trend paper with fully prepared guide lines for the common rates of growth is made available. The horizontal scale is determined by the rate of growth of the series. Unless more than one set of isorropic lines is printed on the trend paper, series with different types or rates of growth cannot be compared on the same sheet. If many sets of isorropic lines are used, particularly if they are for different trend types, the result may be confusing.

[2] More precisely, $4\frac{1}{8}$ years should be used, since the middle of the first quarter of 1925 is $4\frac{1}{8}$ years removed from the beginning of 1921.

BOOK REVIEWS

National Income and Its Elements. By Robert F. Martin. New York: National Industrial Conference Board, 1936. Pp. xiii, 134. $2.50.

A Balance Sheet of the Nation's Economy. By Frank G. Dickinson & Franzy Eakin. Urbana: University of Illinois, Bureau of Business Research, Bulletin 54, 1936. Pp. 35.

In the foreword to the volume on National Income by the National Industrial Conference Board, the president of the organization states, "The present study, like the others published or in preparation, is not intended primarily to be critical of the work that has been done in the field of national income estimates, or to propose others. It is designed mainly as an auditor's exposition of the material and methods available for national income estimates and how they have been used. As a result of this auditing process, the investigator in charge has suggested certain changes of method and treatment which have led to a revised series of estimates. These are offered not as final or complete, but only as a by-product of an effort to contribute to the development and clarification of knowledge in this important field."

In the opening chapter on "The Nature of National Income Estimates," the author gives only a brief discussion of the concepts customarily found in the literature, and defines the two terms which are dealt with in the study, namely, "accountable realized income" and "realized production income." The term "realized" implies a cash rather than an accrual basis for the estimates. "Realized production income" includes all the ordinary elements of national income with the exception of interest derived from mortgages on owned homes and net rent which comes from residential property. "Accountable realized income" includes in addition all other items for which reasonable estimates can be made. No attempt is made to estimate "total income produced," which would involve the inclusion of business savings and losses.

The second chapter contains summary estimates of the national income from 1929 through 1934, followed by chapters devoted to the components of salaries and wages, entrepreneurial income, dividend, interest and net rent, miscellaneous income items, and distribution of income by states for 1929 and 1933. One of the bases of classification of income which is given prominence is that between private and public or governmental sources, reflecting the increasing relative importance of the latter and the peculiar interest of the National Industrial Conference Board therein.

The treatment throughout is brief and concise, calculated to appeal to the business man. The original approach is made through reference to accounting technique, pointing out the desirability of a complete national income and balance sheet statement, but recognizing the inadequacies in available data to complete such statements. The accounting ideal is further emphasized by giving the title "Auditing Notes," to the appendix which explains sources and methods. Insufficient explanations of method and details of compilation are given to enable a scholar to evaluate critically the estimates given, in comparison with those of other agencies. The purpose of the book is to be read by business men rather than to be debated by scholars. In most cases, sources are named for the data back of the various estimates. Agriculture is an exception, a notation being made that sources and methods will be discussed in a later publication.

A still more serious attempt to engage the interest of business men in the problems of our national income and wealth is made by the authors of *A Balance Sheet of the Nation's Economy*. These authors audaciously make a first approximation to a double-entry income and balance sheet analysis of our economy for the year 1929. The authors expressly disclaim any belief in the accuracy of the particular figures they present, being more interested in making a "pro forma" statement as a first approximation. Viewed from this standpoint, and considered as an effort to interest business men in the broader aspects of our national economy, the study has excellent qualities. Furthermore, the approach brings out clearly the gaps which exist in our present knowledge, and emphasizes the fact that adequate estimates of "income paid out" by business should balance with incomes received by individuals.

The authors have in mind, however, a more ambitious purpose than merely presenting information to business men. They believe that if sufficient information of this kind can be given to business men, the result will be that each one will plan his own affairs so that they will balance with the activities of other business establishments. "Their purpose in planning is to attain a continuous and growing prosperity for their individual businesses. If their information were more adequate they would be better able to accomplish this result and in their individual accomplishments would realize for the economy as a whole a healthy expansion. Unfortunately the data that have hitherto been available and the explanations of the operations of the economy based upon these data have been so inadequate that individual business men in their planning have not attained the sound proportionality they sought. The failure of the business men to attain this balance has been among the major reasons for the periods of crises and depressions" (p. 24).

Although the reviewer is heartily in favor of making available to business men all the information possible concerning our industries individually and collectively, he cannot share the optimism of the authors that "sound proportionality" will be measurably advanced merely by this process. The Department of Agriculture tried for many years to get farmers to plan their production on the basis of sound information furnished to them on the outlook for production and prices of the various commodities. Although it must be recognized that the problem of production planning by individuals in agriculture are more difficult than in most other productive industries, experience does not lend encouragement to the hope that this method will be effective among business men. An individual business man does not desire to plan his "individual business in such a way that it will balance with the activities of other business establishments." He wants to get the jump on his competitors, and we have little reason to believe that "their individual accomplishments would realize for the economy as a whole a healthy expansion." Many economists will feel that the authors set too high a goal for the effectiveness to be expected from the accounting approach they suggest.

There is, in fact, some question as to how far the accounting

technique developed for a private business is applicable to the problems of national economics. The standards of living of large numbers of people can hardly be measured by the concepts of private profit business. To illustrate, the authors list as one item in the 1929 income of the nation, an increase of $400 million in the gold, silver and currency in circulation. Passing over the most questionable item of currency additions as indicating an income, how about imports of monetary gold and silver from foreign nations? These constitute income only in the sense of representing savings in the form of claims on foreigners in the future for goods and services.

These claims may be largely negatived by a tariff and trade policy which will prevent the collection of these credits in the future. In other words, the reality of such an income depends on future policies, and such income cannot be accurately measured by accounting techniques. Furthermore, the importation of monetary gold in large quantities tends to set up movements of domestic prices, whose effects on the distribution of income and wealth between the classes within the nation may be of more significance than the net increase in the "income" of the nation represented by the gold imports. The accounting or income-statement point of view records only the net gold imports and neglects the other aspects of the matter which may be of more importance. Accounting, developed for the individual profit-seeker, is myopic when applied to the broader problems of national economy.

Other illustrations might be given. To cite only one, consider the $15.2 billion increase shown in the "net worth" of the country during the year 1929. If we recall the events of the final quarter of that year and the fact that we were well started on the toboggan, however, we have a very different picture. The national wealth of the country, from the standpoint of an effective producing organization, was greatly inferior at the end of 1929 to its beginning. The organization of our economy for *using* our national wealth constitutes a sort of fourth dimension in its measurement. We need qualitative as well as quantitative measures of national wealth and income, which cannot be supplied by the accounting technique.

These remarks relate, of course, to the broader purposes which the authors have in mind for the study. As an initial effort to make the study of national wealth and income appeal to business men, the study is excellent.

U. S. Department of Agriculture, Washington, D. C. WIRTH F. FERGER.

The Commerce Power versus State Rights. By Edward S. Corwin. Princeton: Princeton University Press, 1936. Pp. xiv, 276. $2.50.

A review of the above publication recalls Professor Corwin's work: *The Twilight of the Supreme Court*, published in 1934. The method of presentation is similar in both volumes, that is, decisions of the Supreme Court are critically analyzed. He also makes use of quotations from text writers, statesmen, and counsel in the cases to develop his conclusions. The theme of both works is that the Supreme Court has changed and weakened the powers of the federal government. The scope of the older volume is broader, including dual federalism, vested rights as expanded by due process of law and the police powers, the taxing and spending powers of the federal government. It is sympathetic to the governmental policies underlying New Deal legislation. The present volume deals, as the title indicates, with the commerce power of Congress, the reserved powers of the states, and the effect upon them both of judicial interpretation.

In the final pages of the volume referred to is found the motto of the present volume: "Back to the Constitution." The author makes it clear that by this expression is not meant a return to the narrow, reactionary, legalistic interpretations of the Constitution which began to find favor with the Court about 1890. The return advocated is to that Constitution itself and to the conception of it held by its framers and by its great exponent, Chief Justice Marshall.

In the present volume the author demonstrates that the Court has abandoned the fundamental conceptions of the power of Congress over interstate commerce which Marshall proclaimed by giving ear to interpretations that weaken the supremacy of national law, that curb the power of Congress to regulate such com-

merce, and that revive state powers to the limitation of national power, as was done in *Hammer v. Dagenhart*, the first child labor case.

As to the significance of the commerce power of Congress, Professor Corwin says: "The most important source of national power touching private conduct is, in ordinary times, the power of Congress to regulate commerce among the states."

The general thesis of the work is, that while the superficial area of national power over commerce has been extended since the Constitution was adopted, its depth and intensity have been diminished. The reorganization of business on a national scale has not brought a corresponding increase of national power to meet problems nation-wide in their scope. Not only is this not true, but in the face of a need for extended power in this respect the power of Congress over interstate commerce has largely been stripped of its earlier effectiveness. The author maintains that there is no logical transition from the broad conception of national power held by Marshall to the more restricted and feebler powers held by the federal government today. Six propositions are given which characterize the changed attitude of the Court. Since the work under review centers around these propositions, they are here stated:

1. The framers of the Constitution conferred upon Congress the power to regulate commerce among the states with a different intent than the power to regulate foreign commerce, with the result that the former power is of less scope than the latter power.

2. That the power to regulate commerce among the states does not include the power to prohibit it.

3. That while Congress has power to restrain commerce among the states for the benefit of such commerce, this power is not available for the promotion of the general welfare in other respects.

4. That the reserved powers of the states constitute a limitation upon Congress' power to regulate commerce among the states and serve to withdraw certain matters from the jurisdiction of the latter power.

5. That production is a subject which is segregated to the reserved powers of the states, and so lies outside the range of Congress' power to regulate commerce among the states.

6. That Congress' purpose in enacting a measure is a judicially enforceable test of the validity of such measure if it invades the ordinary domain of the states.

Space forbids reference to the treatment given to each of these propositions; suffice it to say that Professor Corwin contends that each of them is unsound.

When tested by the decision of Chief Justice Marshall in *Gibbons v. Ogden*, the above propositions are seen to be at variance with conceptions of national power there set forth. Marshall said the power of Congress is "complete," "sovereign," "absolute," and of the same scope as if "vested in a single government." It is not less than the power over foreign commerce. The purpose of Congress in enacting legislation is not subject to judicial review. He concedes the power of the states over their internal commerce, but asserts that their powers over internal commerce when interfering with national power are subject to the latter. Finally Marshall states that under the supremacy clause, no matter can be withdrawn from the control of powers delegated to the United States by the fact that the same subject matter also lies within the jurisdiction of the reserved powers of the states.

What the author says of Proposition Five is of special interest to economists. He points out that since the Sugar Trust case the Court has fairly consistently and oftentimes very insistently maintained that production and transportation in interstate commerce are entirely distinct and separate. The one is purely local and subject to state regulation, while the other is legitimately subject to control by Congress. Professor Corwin assails this doctrine as unsound. He maintains that the issue is between national regulation and none at all, not between national and state regulation. He asserts that the problem of controlling commerce organized on a national scale cannot be solved by separating what is a continuous process.

The final conclusions as to the "theory of the commerce power set forth or implied in the six propositions discussed" are:

1. "It has no logical basis in the Constitution itself."

2. "That its historical foundations are about equally shaky."

3. "That its standing even in the decisions of the last forty years, the era of *laissez-faire* on the Bench, is equivocal, and that

it is open to challenge and contradiction from many of the decisions from the same period."

The ability of the Court to shift its position from one theory of interpretation to another almost overnight has left the business of the country in a precarious position. It does not know and cannot find out which choice of position and precedents the Court will elect. As the author says: "A realm of no government of generous dimensions" has been created for business. Certainty of the law is a prime essential for the business world. Perhaps nowhere does this requisite exist to a less extent than in the decisions of the Supreme Court relating to the commerce power of Congress.

To correct the evils so clearly pointed out in this volume the author scouts the advisability of further increasing national power by amendment as such added powers would be subject to the same process of construction by the Court. As to restricting the power of judicial review by amendment, he is not dogmatic. He says "perhaps" this ought to be done. Even if this were done, "we would still have the Court with us and indeed could not get along without it." He thinks the problems of gearing the Supreme Court to the rest of the national government are far too intricate to be solved by the process of amendment. "We must still trust the Court as we have so largely in the past to correct its own errors." We doubt not that this suggestion will be looked upon with much greater favor by the Court than the one made by Professor Corwin in his earlier work in which he urged in 1934 that the Supreme Court leave off its efforts to supervise national legislation. The reaction of the Court to that advice was to declare more national legislation unconstitutional than it had ever done in an equal period of time.

To students of economics and commerce, who pay an increasing attention to judicial decisions in these fields, Professor Corwin's work is of great assistance. Many of us read decisions as they are handed down and endeavor to harmonize them and attempt to gain a connected idea of the judicial attitude upon a subject, yet are left puzzled and confused. In this monograph, the author has, by his wide knowledge of the subject and his penetrating analysis of the decisions, performed a service for us that doubtless

few could perform for themselves. He has connected such decisions as are capable of connection and shown that a great amount of confusion is attributable to the decisions themselves.

To students of government the work is an illuminating demonstration of the changes the Court has made in its conception of essential powers of the national government. States' rights are magnified in one decision and very shortly are limited or repudiated in another.

This small volume presents a searching exposition of the weakened national power over commerce among the states accomplished by judicial interpretation.

In conclusion it may be said that the volume contains a table of cases and an index of persons quoted. The absence of a general index is noted.

University of North Carolina. R. J. M. Hobbs.

The Two Nations: A Financial Study of English History. By Christopher Hollis. New York: Longmans Green and Co., 1936. Pp. ix, 253. $3.75.

This book is an interpretation of English history in terms of price movements and managed currency. The title comes from Disraeli's *Sybil*, and refers to the rich and the poor as the "Two Nations" in England. The book is thoroughly documented with many citations to authorities in history and economics; yet its conclusions will probably not be accepted by historians and economists.

This reviewer is not competent to criticize the interpretation of English history; and space permits only a brief statement of the author's conclusions. The book is an argument for the necessity of a stable price level, and a story of the losses and misery that have been suffered from periods of inflation and deflation of prices. England has always had a managed currency. Before Henry VIII the kings managed the currency by debasements of the coinage, and maintained a stable price level. In later periods the bankers have managed the currency and have created wide and frequent fluctuations in prices. The "invention" of money by the bankers and the system of "double money"—bank notes convertible into gold—have given the bankers the power to create periods of in-

flation and deflation, to control production and investment, to enslave the people through debt, and to promote foreign trade and foreign investment by forcing down British wages. The standard of living of the English poor was steadily degraded from the time of Henry VIII till about 1860. The monetary system as controlled by the bankers was responsible for the degradation of the English workingmen, for the "starvation in the midst of abundance," which was denounced by Bishop Berkeley 200 years ago and by Cobbett 100 years ago.

Mr. Hollis thinks the money power was broken and the foundations laid for a new and a better economic order when the gold standard collapsed, and when the United States and the British Empire nations announced their intention to maintain a stable price level.

The author's plans for an ideal system are somewhat difficult to untangle from the web of his condemnation of the "double money" system, the bankers, and the economists. He would have an irredeemable paper currency issued by the government, with the primary obligation to maintain a stable price level. Any person could lend money that be possessed, but no person or banker would be permitted to "invent" money. Funds for production should be invested on a basis of sharing in the enterprise, and "usury" should not be a natural right of property when there is no augmentation of savings. If we had a stable price level capital could be safely invested on a basis of sharing, as in common stocks, and there would be no justification for gilt-edge bonds—and perpetual debt.

The author probably flatters the foresight of the bankers when he attributes to them many designs and deep-laid plans to increase their own profits at the cost of degrading wage earners and ruining agriculture. The discussion and the arguments are scattered and disconnected; and the suggested reforms are supported only by the author's interpretation of history.

Washington and Lee University. G. D. Hancock.

Rich Land, Poor Land. By Stuart Chase. New York: McGraw-Hill Book Co., 1936. Pp. x, 361. $2.50.

This popularly styled book is a call to arms for the slumbering

millions in the United States who are, consciously or unconsciously, wasting natural resources.

The setting is primeval America, occupied by aborigines who lived a bountiful life in a land where wild fowl abounded in mosquitoless swamps, where fish for food and fertilizer teemed in sparkling rivers, and where innumerable varieties of wild animals roamed in sheltered forests and plains that formed ideal hunting grounds. Yet the author realizes that an economy for a million aborigines has many possibilities not available for a civilized population of 130,000,000.

In order to get the feel of the nation, the reader is asked mentally to place his left hand on the Pacific Coast and to move it eastward over the mountains and plains to the hundredth meridian there to meet the right hand which has similarly come from the Atlantic Coast. The country is thus divided into two parts. In the East there is a much heavier rainfall than in the West. This is of fundamental importance because it indicates where moisture must be preserved and where erosion is most destructive.

The reader is hurried through an intervening period of three hundred years and seated comfortably in a "metaphorical airplane" cruising over the United States. Looking down into a great dust bowl from the airplane the land becomes invisible. In Nebraska a farmer, unseen from the skies, is spending his leisure time counting the Kanasa farms as they go by.

The third chapter, "From Plymouth Rock to Ducktown," describes a trip southward through Tennessee to a town with copper mining and refining as the only business. The ores are being depleted, the grasses have been destroyed within a ten-mile radius, erosion has carried away the best of the soils and created huge gullies. Mr. Chase calls the place Ducktown and then remarks that it is "the symbol of the logical end of an undirected machine age."

With ingenuity and care, the author develops principles which provide continuity and coherence in later chapters. Ecology is used to show the relationship between organisms and their environment, or "who eats what?" It is a cycle. Every living organism owes its existence to other organisms. If the balance is properly maintained everything goes well, otherwise an un-

balanced situation causes havoc. There must be no missing link in the chain.

Ecology is used as a basis for the concept of the "Great Wheel." The "Great Wheel" contains the plant, animal, soil, mineral, and hydrologic cycles. Nature replenishes herself if given time. Undue waste or destruction of any part of the "Wheel" means an unbalanced situation which nature does not mend in the short run. There follow statistics and approximations as to waste in the use of almost every natural resource in the United States. This account includes resources waste as to crop, grass and forest lands, upstream and downstream, on land and water, and below the surface. On the inside cover pages of the book is a colored illustration of an unplanned river valley with oyster beds which should be condemned and a planned valley with approved oyster beds where the oysters are free from typhoid germs and are edible.

New Deal measures of a conservation nature are approved as only a beginning. Dams will be filled with wasted soil resources unless conservation begins at the headwaters. Mr. Chase is of the opinion that five million men could be employed in conservation. He pulls a rabbit from a hat and shows how the five million men could be used at no cost. Such magical stunts are excellent for popular appeal but unorthodox as to economics. It can be true in no case according to economic doctrine except, possibly, in a totalitarian state.

The present reviewer believes that the plates used to illustrate waste of resources give to a certain extent an exaggerated picture of actual conditions. On the whole the book has popular appeal and is certain to strengthen the demands for conservation of natural resources.

University of Kentucky. LUCIAN H. CARTER.

The Negro as Capitalist: A Study of Banking and Business Among American Negroes. By Abram L. Harris. Philadelphia: American Academy of Political and Social Science, 1936. Pp. xii, 205. $3.00.

Within the last decade or more, Negro leaders have turned their attention to formulating economic programs as a means of solving the race problem and from time to time we have had movements

brought forward with such slogans as "back to the farm," "a well-housed and well-fed middle class of trained artisans," "co-operative organization," "a Black and White labor alignment," and many variations. But the program that has received the most enthusiastic support and approval has been that of "an independent Black economy."

The main thesis of Dr. Harris' book is that a segregated economy cannot function within the confines of our present industrial system and that therefore all practical expression of such a philosophy is doomed to failure. For example, the C.M.A. Store, which is a practical expression of the philosophy of Booker T. Washington, who advocated the development of a Black economy upon a strictly competitive and private profit basis, and the aggregated co-operative society of Dubois are futile efforts as means of achieving the Negro's economic salvation. Moreover, such a variation of this program as the "Don't buy where you can't work" movement advocated by the Chicago *Whip* and the New Negro Alliance is equally futile, self-defeating, and economically unsound.

In order to substantiate this thesis Dr. Harris devotes the major portion of his book to a study of Negro banks. The title of the book, *The Negro as Capitalist*, is inaccurate and somewhat misleading. A study of Negro banks is a study of the economic basis of the Negro middle class. Thus the book is really a historical and descriptive study of Negro banks that have failed in Virginia, Maryland, Pennsylvania, Illinois, and the District of Columbia. There is also an excellent treatment of the Freedmen's Bank.

The chief contribution that Dr. Harris' study makes to the well-known story of the causes of the failure of Negro banks is his application of a ratio analysis to the financial structure of Negro banks. A description of this ratio norm was published in the Bank Credit Problem department of the *Bankers Magazine* and later reprinted under the title, *How to Analyze Bank Statements* (Bankers Publishing Company, 1928). This technique is weak when applied to small banks and especially so when applied to small Negro banks. However, it is interesting and does give us additional information with reference to why Negro banks have failed. More significant is the fact that this type of analysis shows that

the most important factors that have caused Negro banks to fail have not been lack of experience and technical bank training, nor have they been dishonesty and fraud, but rather the lack of industrial and commercial enterprise in which Negro banks might find an outlet for their funds. Dr. Harris states that even if Negro banks were given sound and honest management, the inherent characteristics of Negro business enterprise would be a fundamental and perhaps insurmountable obstacle to their successful operation. As a result of the failure of banking among Negroes, due to such fundamental factors as the need of a larger amount of trade, industry, and commerce than Negro life will ever afford and the unslackening growth in size and power of White financial and industrial organization, the future of Negro finance and business is dismal.

Thus, one who reads Dr. Harris' book will undoubtedly put it down with these questions in his mind: What can the Negro do for his economic salvation? Is there a way out? What would Dr. Harris recommend?

West Virginia State College. THOMAS E. POSEY.

Is There Enough Gold? By Charles O. Hardy. Washington: Brookings Institution, 1936. Pp. x, 212. $1.50.

When the desirability of the gold standard is challenged, it is generally on two grounds: whether a more or less automatic monetary system can be satisfactory, whether the supply of gold may be expected to remain adequate for a remunerative price level. These grounds are not, of course, independent of each other. Together they cover the doubts that many economists have expressed of the alleged soundness of a monetary system "dependent on the hazards of mining."

Dr. Hardy's study is largely concerned with the probable adequacy of the gold supply in the near future. There is an excellent critical discussion of the estimates that have been made of the prospective growth of the monetary gold stock. The conclusion is that such estimates have been too pessimistic. The exhaustion of gold fields is not so near as many experts predicted. With the greatly enlarged nominal amount of the gold reserves through

revaluation of the money unit in many countries, the greater danger, Dr. Hardy holds, is the possibility of a too rapid expansion of the quantity of money on the basis of these excessive gold reserves.

While Dr. Hardy believes that the potential gold supply is adequate for ordinary conditions, he recognizes that in severe depression it is impossible to provide sufficient gold to meet the demands of a flight from a currency. "The history of gold movements during the depression thus affords ample evidence," he writes, "that no gold supply can ever be adequate if adequacy is tested by the ability of a country to meet gold drains based on loss of confidence in the country's credit structure." With the great facility that money balances have attained of moving from financial center to financial center, it becomes important to consider whether this is not the very drain that countries must face in periods of depression. And it must also be considered whether a monetary contraction to meet this drain, which seems to take place for some time before abandoning the gold standard, is not too much to pay for the privilege of being on the gold standard for longer or short periods between severe depressions.

The reader interested in the theoretical relationship of gold production to long period normal price movements will find in this volume a useful and critical discussion of the theories of Cassel, and Warren and Pearson, as well as other literature on the question. The usefulness of the study is also increased by its many helpful tables and charts.

University of North Carolina. E. M. Bernstein.

Analyses of Business Cycles. By Arthur B. Adams. New York: McGraw-Hill Book Co., 1936. Pp. xi, 292. $3.00.

Business Cycles and Forecasting. By Elmer C. Bratt. Chicago: Business Publications, 1937. Pp. xiii, 501. $3.50.

The views of Dean Adams on the causes of and remedies for cyclical fluctuations are now well known through his earlier writings. In this volume he adds little to his previously stated views, although he presents them with greater clarity and logic. Briefly, Dean Adams believes that booms and depressions are caused by inequality in the distribution of income that results in the use of an undesirably large part of this income in investment. The con-

sequent expansion in capital equipment ultimately leads to the production of an excessive volume of consumption goods: excessive, that is, with respect to the capacity of the community to purchase these goods at remunerative prices. It is the familiar oversaving theory of Hobson, without the refinements and modifications that recent writers have introduced. The suggestion is made that in economic maturity, a state Dean Adams believes we have probably reached, depressions may develop without a preceding boom. Unless the distribution of income is modified toward greater equality, he predicts recurring non-boom depressions.

Professor Bratt's book offers a more comprehensive discussion of business cycles. His purpose is to explain "why economic change takes place, how we can measure, and the extent to which we can forecast it." About two-thirds of the volume is devoted to the statistical measurement of business fluctuations, and to the problems of forecasting. On these questions he is very helpful. The numerous charts and tables will be particularly helpful to the student in business cycle courses. The discussion of theories of causation and control is not of the same quality as the statistical discussion. Professor Bratt holds that no one theory can explain such complex behavior as business cycles show. Admitting this, the reader of a college text may still reasonably require more than twelve pages on twenty leading theories of business cycles, and much more than five lines on Hawtrey and ten lines on Keynes. As for remedies, Professor Bratt is not optimistic regarding the efficacy of artificial control. He seems to have unusual faith in the beneficent effects of depression.

University of North Carolina. E. M. Bernstein.

What the International Labor Organization Means to America. Edited by Spencer Miller, Jr. New York: Columbia University Press, 1936. Pp. 108. $1.50.

In 1935 the Institute of Public Affairs at the University of Virginia set aside one of its round tables for a consideration of the I.L.O. This book is a symposium of the principal addresses of that round table.

The various authors present a well-rounded statement both of the meaning and purpose of the I.L.O. and of the importance of

the recently-sanctioned American participation. Since the time of the earliest factory acts, protective labor legislation has been opposed by interested groups on the grounds that foreign enterprisers would thereby gain a competitive advantage. International labor standards are an attempt to meet the validity of this argument. Such a purpose is of unquestioned importance to American industry and labor, faced as they occasionally are by the competition not of cheap foreign labor, but of exploited labor.

Another important aspect of the I.L.O. is the permanent office at Geneva which collects what might be called international labor statistics. At this office students of labor problems, business men desiring to improve personnel management, and labor leaders interested in foreign experience, may learn from the experience of others. Americans, because we are so young in social legislation, stand to gain considerably from this service. Innumerable foreign junkets to study this or that should no longer be necessary if Dr. Hanna is correct in his description of the I.L.O. as an international informational clearing house.

That the work of the I.L.O. may be better understood, cooperation among voluntary organizations is necessary. Only "through enlightened public opinion can we hope to build up the support necessary to make our membership effective and of practical value," says Dr. Tayler of the National Committee of the I.L.O. Such a task must in part depend upon the work of our educational system.

Because its problems are largely economic, many of its visionary advocates conceive of the International Labor Office as the most important agency making for world peace. Others are content to consider it a body that can go far to raise the standards of living of the workers of the world. To both groups this volume should present interesting viewpoints.

Duke University. FRANK T. DE VYVER.

Cooperative Consumer Credit: With Special Reference to Credit Unions. By M. R. Neifeld. New York: Harper & Brothers, 1936. Pp. x, 223. $2.50.

The student of cooperative credit will find valuable material on the development of credit unions in the past 25 years in this volume

by the statistician of the Beneficial Management Corporation which does a large personal loan business. Dr. Neifeld, author of *The Personal Finance Business*, knows the whole field thoroughly and presents his facts clearly. He concludes that "the place for credit unions in the field of consumer credit appears to be somewhat wider in scope than is now occupied, but at the same time is more circumscribed than is claimed for it," and he offers a "27-point program" for credit union operation.

Consumer credit is always in demand, the demand is growing, and the whole subject offers difficult practical and theoretical problems so that one welcomes an appraisal of the achievements of credit unions in solving them, even though the last word on the subject has not been said. For instance, there is no discussion of the vast field open to credit unions in offering a substitute for present forms of installment credit. Some of Dr. Neifeld's criticism of practice and claims call for serious consideration: such is his attack on the notion "that the very nature of the co-operative somehow endows untrained and inexperienced persons with the wisdom and skill to manage successfully for a group". On the other hand, this reader felt that a large part of the purpose of the book is to show the size and importance of the field which must still be covered by personal finance companies. Several chapter summaries end with this text and it is scattered at intervals throughout. It may be well to bear in mind this "special reference" in evaluating the author's emphasis and some of his criticisms of credit unions and their sponsors.

The introductory chapters of the book cover a wide range of time and territory and sometimes accuracy is sacrificed for brevity, as for instance, an over-simplification of the anomalous position of the Russian cooperatives. Where too great a range is not attempted, the simplicity and lucidity of writing add greatly to the virtue of the book. It has a good index and adequate references.

Sweet Briar College. GLADYS BOONE.

Organization and Management of a Business Enterprise. By Karl D. Fernstrom, *et al.* New York: Harper & Brothers, 1935. Pp. xi, 703. $3.50.

The stated purpose of the authors has been to "work out a

chronological approach, beginning with the problems involved in starting a business". It is interesting to see that the all too common fate of business enterprises may be indicated by the closing chapter, "Failure and Reorganization".

Due to the somewhat different approach, it seems fair to consider the impressions which might be emphasized in the mind of a young man who would spend nine months in some business organization, giving approximately the proportionate amount of time to each phase of the business as is indicated in this text.

Preparatory to a more intensive study of the business, he might well spend one-seventh of his time in studying the fundamental *Nature* of business. This would be under the guidance of those who would emphasize the relationship of business to law, as well as point out the problems concerned with profits and risks. He would naturally familiarize himself with the various forms of business organization.

Then he would endeavor to visualize the way in which a business enterprise gets under way. The probability of a corporate type of organization would be noted.

Our theoretical student would then be ready for the *Operation* of the various parts of the business organization, under the usual headings of Finance, Production, Marketing and Accounting.

In order that Operation may not wander too far from the original idea, and make normal progress, the importance of *Planning* the enterprise according to a master plan and budget is here included.

The engineering atmosphere which naturally surrounds the authors at the Massachusetts Institute of Technology is more clearly shown in the *Control* of the enterprise than in any other part of the text, but our student, following through the business, would not have to be a graduate engineer to understand the explanations of Production Control and Factory Cost Analysis.

In fact, the whole text is written in a straight-forward manner. The book moves forward in such a way that our student, studying a business under somewhat like conditions, would realize that business is not static but a living, constantly changing structure.

Davidson College. JOHN P. WILLIAMS.

Elements of Farm Management. By John A. Hopkins. New York: Prentice-Hall, 1936. Pp. xviii, 390. $2.20.

The author declares it to be his purpose "to set forth some of the basic principles of production economics in a simple and realistic manner," dealing with them as interest naturally arises "in practical problems of farm operation." The purpose is somewhat overstated since the book deals with only a small segment of the field of production economics, namely that of farm management.

The book is divided into eight parts covering twenty-five chapters. Part I provides an excellent treatment of the factors to look for in selecting a farm but reveals a certain amount of restricted thinking in the emphasis placed upon the various types of farming areas and in the treatment of the forms of tenancy.

Part II, dealing with farm resources, factors of production, inventories, budgets, and plans, and with the principle of diminishing returns, would have been greatly strengthened by the inclusion of material scattered loosely throughout other parts of the text.

A more effective presentation of Part III, "The Crop System", and Part IV, "The Livestock System", would have been achieved had they been combined into one part—"The Farming System." In any event, the treatment is not of the crop system and the livestock system but of the place of various crop and livestock enterprises in the farming system. A chapter dealing with "Requirements in Crop Production" makes no reference whatever to one of the world's most important crops—cotton.

Part V, "Economizing Labor and Power", discusses various means by which the farmer may get the most efficient use of the labor and power available to him. This would seem to be the proper place for Chapter XX, "Making Efficient Use of Labor", which forms a portion of Part VII.

Part VI is made up of two chapters: "Budgeting for General Expenses", and "Records to Check up on Farm Performance". The chapter on "General Expenses" leaves one a bit confused as to whether "direct", "indirect", "variable", "operating" and "fixed" expenditures are always considered "general" and "incidental". The material contained in both of these chapters could have been included to better advantage in Parts III and IV.

In Part VII, a chapter on "Checking up on Performance—Use of Records", appears to be superfluous in view of the preceding discussion of "Records to Check up on Farm Performance". Another chapter, entitled "Modifying the Budget and Allowing for Price Change", would be more effective if taken up along with plans and budgets in the earlier parts of the book.

Part VIII treats of "The External Relationships of the Farm Business". Chapters dealing with coöperation, farm financing and marketing are well written and about as complete as is possible in a general text.

The essential criticisms of the text are that it is loosely organized, the source of data presented is not always clear, and an otherwise satisfactory bibliography is weakened by the almost total lack of references to the literature of any Experiment Station outside of the Corn Belt. This naturally places a limitation upon the use of the book as a text.

Clemson College. G. H. Aull.

Administration of Workmen's Compensation. By Walter F. Dodd. New York: Commonwealth Fund, 1936. Pp. xviii, 845. $4.50.

The enactment of social legislation in the United States follows a pretty uniform pattern. A wave of enthusiasm for some reform sweeps over the country, and when it recedes we find a number, and not infrequently a considerable number, of the more progressive states with the legislation in question on their statute books. Other states, somewhat less progressive, have been moved to positive action and, one by one, will shortly fall in line. Still others will be found to have been touched not at all. Once the initial enthusiasm has passed, it becomes increasingly more difficult to bring the lagging states into line. Furthermore, except in cases where the most flagrant shortcomings manifest themselves, public interest is almost completely lacking in the prosaic, day-by-day work of administration, and in the scarcely less prosaic work of securing improvements in the provisions of the act once it is on the books. This lack of interest is due, perhaps, first, to the demands of more spectacular issues elsewhere; and second, to the fact that administration and improvements call for technical

knowledge which the public does not have, and cannot be expected to have. Whatever may be responsible for the lack, the results are much the same: the absence of legislation in some states, and the perpetuation of entirely inadequate measures in others.

Nowhere has this sequence of events run more true to form than in the case of workmen's compensation. It seems almost incredible that twenty-seven years after the first permanent workmen's compensation law was enacted in the United States, two states, both in the South, should still be without this universally accepted form of protection. Such, however, is the case. Moreover, in those states, a negligible number, where a thoroughgoing investigation has been made of the operation of workmen's compensation, appalling inadequacies have been disclosed. The conclusion is unavoidable that there remains much to be desired in our compensation laws, both as to standards and administration.

In the volume here reviewed, the author has rendered an outstanding service to the cause of workmen's compensation. His purpose was ". . . to analyze the problems involved in the administration of workmen's compensation, in order to discover, where possible, what methods have proved the most satisfactory." He was frankly interested, not in trying to reach the general reader, but to present the problems of administration to such groups as organizations of labor and of industry, insurance carriers, administrative officials, and others who are immediately and vitally interested, and from whom the initiative in bringing about improvements must come. Problems of policy and questions of adequacy of standards are considered only in so far as they are an incident to administrative problems.

With this purpose in view, the author, after a brief historical background, turns to a detailed treatment of such technical matters as types of administrative agencies, contested and uncontested cases, court review of compensation awards, the medical problem, relative merits of different types of insurance carriers, the relation of workmen's compensation to accident prevention, and similar problems. He concludes his study by observing that workmen's compensation is now an established institution in the United States, and that there has been a constant increase in its territorial expansion, and in its wider application to injuries; that the earlier

laws, while the result of careful study by commissions appointed for that purpose, were necessarily experimental in nature and were frequently hampered by constitutional restrictions, were nevertheless largely copied by later legislation, with the result that "the laws as they now stand are not scientific products but are in most cases the early laws modified to some extent by experience and by the influence of interested groups in the several states;" and, finally, that much remains to be done toward bettering the content and administration of workmen's compensation, a need that should not be lost sight of because of the present interest in other forms of social insurance.

The reviewer has only praise for this excellent volume. It is a most welcome and timely addition to the literature on the subject of workmen's compensation, and will prove invaluable to the student and administrator alike. Despite the author's modesty, it contains much of interest, presented in non-technical language, for the general reader.

University of North Carolina. HARRY D. WOLF.

The Regulation of Competition. By Nelson B. Gaskill. New York: Harper and Brothers, 1936. Pp. x, 179. $2.50.

To one who taught Trade Regulation during the twenties and who felt concerned, even disheartened, at the frequent crestfallen emergence of the Trade Commission from federal courts after efforts to balk unfair practices beyond the simple ones long recognized by the Common Law, this book from the pen of an official participant in the history it records, has an especial interest. But its inclusion of more modern matter, observations on N. R. A. and proposals for a more effective statute for business regulation than any of those yet enacted, together with its often gay and felicitous style and sparkles of humor which seem seldom forced (see pp. 53–56, 67, 112, 120), give it a far wider appeal than to a student in the specialized field. Every one has an interest in the way business is run and anyone can read this brief volume to some entertainment and profit.

A skeleton outline follows. First, in consequence of the *Standard Oil* decision and its "rule of reason", there came the Wilsonian

proposals for tightening up and clearing up the anti-trust laws to give unhampered competition and a more accurate knowledge by business men of exactly what was interdicted; then the Congressional stalemate in a confused effort to carry out these proposals, followed in turn, whether knowingly or not, by a quite different policy of committing the matter to an administrative regulatory body, the Federal Trade Commission, under a vague authority to prevent "unfair methods of competition". This grant of discretion in the author's opinion would have been unconstitutional if it was as wide as many hoped it would be but it proved instead a very modest and unsubstantial grant when, as some foresaw (p. 54), the courts had interpreted it in the light of the Common Law. The Commission was repeatedly informed by the federal judges that it had not been engaged to prepare a new sanitary system for the old place but only to help a little with old chores, clean the old rubbish from the barnyard and keep the weeds cut about as they had been in the past,—a not very stimulating assignment. Mr. Gaskill reviews in separate chapters the four principal cases which served to impart that sobering and paralyzing information to the Commission (*Gratz, Curtis, Klesner and Raladam* cases, though his particular emphasis on these unfavorable decisions doubtless gives the reader a little too black a picture of the Commission's accomplishments,—cf. for example, *F. T. C. v. Keppel*).

Along with its other endeavors which were to collapse under judicial reproof went the trade practice conference from which the Commission sought to get standardized mercantile opinion on unethical practices and to set up a code of practice for each particular industry on which the Commission then bestowed its official but unauthorized and impotent blessing. The N. R. A., which came later under a law actually authorizing what the Commission act did not, utilized the idea of the code for industry under administrative approval but failed economically, in the author's opinion, by incorporating explosive labor provisions, as it failed legally by too great a delegation of legislative power. His own proposals in the form of a model act adopt the same idea but divorced from bothersome labor provisions and with a much more narrowly limited grant of discretion (pp. 164–165, 168).

Some may doubt, however, if at this date labor will miss any chance to see protective clauses of its own inserted in either law or codes for industry.

As might be expected from the now titular head of an industry (The Lead Pencil Institute), Mr. Gaskill is for regulated competition, the regulation to come in large measure from the sense of the industry itself. The risk which many will feel here, as they do on the subject of commercial arbitration, is that the opinions and rules will be those of the "big fellows". It may, for example, crystallize the domination of a particular field through the use of a trade name long since become generic, like "asperin".

And as for his aversion to handing over large morsels of discretion to courts and boards with but vague standards to guide them he seems to be breasting a stream against him, for, while the N. I. R. A. admittedly went too far, it is the order of the day to punish "unreasonable" speeds on the highway, to authorize business and conduct found to be "in the public interest" or backed by "adequate" capital, etc. The more complex the society, the wider the discretion, it seems. All of which detracts nothing to speak of from a lucid, thought-provoking book.

Law School, M. S. Breckenridge.
University of North Carolina.

STATE NEWS

ALABAMA

The second special session of the Alabama legislature in 1936 has produced three acts of particular interest. On December 17, 1936, the Governor approved an act that imposed a one and one-half per cent tax upon the gross receipts of persons and business concerns engaged in selling at retail or in conducting places of amusement. The tax is imposed for the privilege of engaging in business and is in addition to other licenses and taxes. However, certain classes of commodities and services that are subject to special tax levies are exempted. The tax went into effect January 1, 1937.

The validity of the act was immediately questioned. On January 14, 1937, Judge Walter B. Jones of the Circuit Court of Montgomery County in his decision in the case of *Nachman and Meertief v. Long et al.*, declared the act constitutional. On February 18, 1937, the Supreme Court of Alabama upheld the decision of Judge Jones.

Scarcely had the Gross Receipts Tax been enacted than the legislature began consideration of a sales tax. On February 16 the House of Representatives passed a bill that had previously been approved by the Senate. On February 18, the Governor returned the bill to the House with certain suggested changes. The House and Senate both voted to accept the amendments desired by the Governor. The sales tax bill repeals the Gross Receipts Tax as of March 1 and imposes a two per cent tax on retail sales, which, according to the terms of the act, must be passed on to the consumer. The bill provides for one and five mill tokens to be used in paying the tax. Homesteads are to be exempted from the state ad valorem tax (but not from county and municipal levies) up to a value of two thousand dollars.

The proceeds of the Sales Tax in excess of the amounts needed to replace the losses arising from the homestead exemption are to be covered into the state educational trust funds.

The third important piece of legislation was the enactment of a liquor bill. The act provides for a referendum to be held March 10. It repeals the bone-dry law of the state provided one county votes wet and legalizes the sale of liquor in all counties voting wet. Under the provisions of the act, packaged liquor will be handled by state-owned stores located in the wet counties. Liquor by the drink will be sold in licensed restaurants, hotel dining rooms, and clubs. Revenue derived from taxes and profits on the sale of liquor will be divided between the state and counties and is to be used principally for welfare and health work.

Unemployment compensation has been facing many tests in the state and federal courts in Alabama. Judge Davis of the Southern Division of the Northern District of Alabama on January 14, 1937, in the case of *Beeland Wholesale Company et al. v. Davis* and *Alpha Portland Cement Company et al. v. Davis*, declared the federal act constitutional. The case has been appealed to the United States Circuit Court.

On December 15, 1936, Circuit Judge S. H. Sibley and District Judges R. T. Ervin and C. B. Kennamer in the case of the *Gulf States Steel Company v. Carmichael* declared the Alabama Unemployment Act in violation of both the federal and state constitutions. The plaintiffs and other companies that joined in the petition were ordered to place in escrow funds sufficient to pay the taxes should the decision be reversed. The state has appealed the case to the Supreme Court. An interesting additional development of this situation is that the Bureau of Internal Revenue has ruled that monies placed in escrow do not constitute payment of payroll taxes to the state and that firms that have handled the matter in that way are not entitled to credit on taxes due under the federal act.

In the state courts several actions have been brought against the state act. The decisions thus far have ruled that the act is constitutional. The leading decision is that of Judge Walter B. Jones of the Circuit Court of Montgomery County in the case of *Beeland Wholesale Company v. Kaufman*. The Alabama Supreme Court has not yet handed down a decision on the appeal.

No settlement has yet been reached in the dispute between the Tennessee Coal, Iron and Railroad Company and the Mill, Mine

& Smelter Workers International Union of America. The union has voted to strike but the strike has not been called and efforts to bring about an agreement are being continued.

University of Alabama. H. H. CHAPMAN.

FLORIDA

The second annual Economic Conference of Rollins College was an interesting event of early February. This conference was well attended and there were extended discussions of the subjects included. The leaders of the discussion and their topics follow:

"Economies of Our Southern Forests," Mr. E. L. Demmon, Director of the Southern Forest Experiment Station.

"Pro and Con of the Florida Ship Canal," Col. William J. Wilgus, Consulting Engineer.

"Social Security," Dr. Walter J. Campbell, Chief of Educational Division of the Social Security Board.

"United States Monetary Nationalism," Prof. H. B. Dolbeare, University of Florida.

In addition to these discussion topics, there were addresses made by Dean Walter J. Matherly, University of Florida, on "Florida—The Most Unusual State in the South" and by Dr. J. S. Young, University of Minnesota, on "Japan and Some Political and Economic Problems."

An event of interest to every educator was the University of Florida's General College Seminar on "Significant Trends in General Education." This seminar, with sessions daily during February 15–19th, had a faculty of distinguished educators and attracted representatives from over thirty educational institutions. Each meeting of the seminar devoted part of its time to questions and general discussion.

By the cooperation and joint sponsorship of the University of Florida, the Farm Chemurgic Council, The Chemical Foundation, the Florida Section of the American Chemical Society and the Florida State Chamber of Commerce, there was held an all-day conference on Florida Agriculture, Industry, Science, and Finance. The central theme of this conference was an analysis of Florida's resources and their possible development.

University of Florida. ROLAND B. EUTSLER.

KENTUCKY

The disastrous flood is, of course, the most outstanding feature of Kentucky's recent history. The destruction of life and of property has been too great to be easily exaggerated.

Much of Kentucky's industry and trade centers in the cities and towns suffered the deepest inundations. The welfare of thousands is affected directly and that of even greater numbers indirectly. Already the state's revenues have declined sharply and the problem of local finance in the flooded areas is indeed grave.

The 1936–1937 special session of the legislature was called just before Christmas by Governor Chandler to consider social security legislation and certain changes in the revenue laws of the state:

An unemployment insurance law was enacted. It provides for maximum benefits to eligible employees of $15 a week for not longer than fifteen weeks in any year in which the employee has worked regularly not less than twenty weeks. Minimum payments to eligible employees of $5 a week were provided.

Building and loan associations were exempted from the payment of the corporate net income tax that was enacted last year.

The so-called omnibus tax upon ice cream, candy, nuts, chewing gum, soft drinks, and cosmetics enacted in 1936 was repealed, to take effect April 17, 1937.

The revenue laws were amended to authorize the Commissioner of Revenue to act in the name of the state and all subordinate taxing jurisdictions, excepting municipalities, to institute legal action for the collection of delinquent taxes and the assessment of omitted property. The Commissioner of Revenue was authorized to employ field agents, accountants and attorneys to prosecute such actions and proceedings, and to fix their compensation, subject to the written approval of the Governor. This brings to a close the disgraceful use of the semi-autonomous revenue agent or "tax ferret" as he has been called.

The law which provided for the consolidation of the office of sheriff and jailer was repealed. This was, in the opinion of the writer, a backward step but it is to be hoped that it is but the preliminary to a real reorganization of local government.

Provision was made for the refund of revenue collected under

the state gross sales tax of 1930 that was held invalid by the United States Supreme Court in 1935.

Wholesalers of tobacco products were allowed compensation for affixing stamps to cigarette packages.

University of Kentucky. RODMAN SULLIVAN.

MISSISSIPPI

The first annual report of the Mississippi Unemployment Compensation Commission went to the Governor on February 1st. In collecting $712,179 at the rate of .9 per cent of payrolls for the year 1936, the Commission incurred expenses of $46,314, or approximately 6.5 per cent.

The Social Security Act, which provides for federal payment of the expenses of state commissions, evidently contemplates that administrative costs of unemployment insurance are to be approximately one-ninth as much as the states' collections from employers; yet Mississippi's expenses in future years are likely to drop far below the 1936 level of 6.5 per cent. The commission's most expensive function, that of dispensing benefits, has not yet started; but many phases of this work will be done by the employment offices, which are supposed to be financed by funds other than those procured through unemployment insurance contributions. Of the commission's expenditures for 1936, $5,494 went for purchases of office equipment, and several other items were higher than they should be in future years. At the same time, the total collections were less than one-third as great as they will be when the full rate of 2.7 per cent becomes effective in 1938. Apparently the Mississippi commission has established a record of administrative economy surpassing expectations.

The Mississippi law unintentionally provides a great boon to economists who are interested in data on the wages and hours of labor in the state. In adopting the pooled fund plan, the legislature made no definite provision for the introduction of a merit rating system. When a worker becomes unemployed in a state with a merit rating system, it may be feasible to rely upon the statements of employer and employee in determining the rate of benefits, for just as the employee has an economic motive to prevent the rate from being too low, the employer has an economic

motive to prevent it from being too high. In this state, however, the employer has no strong financial reason to keep the individual employee from exaggerating his claim, and consequently the commission is forced to keep currently in its office a record of hours and wages per payroll period for each of the 128,000 employees covered.

Employers are raising a very understandable protest over the amount of detail in which they are now required to make reports, and plans are on foot to alter the method of calculating benefits, so that only the wages received each quarter by each employee will be necessary. Unless there is a special session of the legislature, however, the commission will be obliged to continue amassing its records on the present basis long enough to cover a period of at least two years.

Economists will welcome the establishment of a separate Department of Economics at Mississippi State College. Two years ago the work in this field, which had previously been given in the Department of History, was taken over jointly by the Departments of Business Administration and Agricultural Economics. Growing demand for courses in economics brought the decision to create the new department at the beginning of the 1937–38 session. Professor Frank J. Welch, Associate Professor of Business Administration, has been nominated to head the department.

The School of Business and Industry, under Dean James V. Bowen, is also expanding its curriculum in order to accommodate a new four-year course in Agricultural Administration which will be established next fall by the School of Agriculture. The Department of Business Administration will offer two new courses, one in the Fundamentals of Accounting and the other in Farm Law. The Department of Agricultural Economics will continue offering a wide list of courses in this field, including Farm Management, Agricultural Prices, Marketing of Agricultural Products, and Land Economics. The School of Business and Industry now has an enrollment of more than four hundred students.

The University of Mississippi recently sponsored its first Life Insurance Conference, which was attended by 150 students and citizens of the surrounding area. The Lamar Life Insurance Company furnished six officials and other executives as lecturers.

University of Mississippi. McDONALD K. HORNE, JR.

NORTH CAROLINA

In December, the General Assembly in special session enacted an unemployment compensation law. The state was threatened with the loss of 1936 payroll taxes levied by the federal law, estimated at about two and a half million dollars. The law provides that benefits are payable after January 1, 1938, to 50 per cent of the weekly wage, with a maximum of $15 and a minimum of $5 per week. To be eligible unemployed workers: (a) must have earned in the preceding year an amount equal to 16 times his weekly benefit; (b) must have been totally unemployed for two weeks; (c) must be registered, able and available for work. The duration of benefits depends upon the length of previous employment. A worker is disqualified for benefits (from one to nine weeks) if he has: (a) quit work voluntarily without good cause; (b) been discharged for misconduct; (c) failed to accept "suitable" work when offered to him. Benefits are to be financed by a payroll tax on employers only. A commission to administer the Act is created, composed of the Commissioner of Labor and two members appointed by the Governor.

The General Assembly met in regular session early in January and received from the Governor a balanced budget calling for the expenditure in each year of the biennium 1937–39 of slightly more than seventy million dollars, compared with an actual expenditure of sixty-eight millions in 1935–36 and an estimated seventy-five millions in the present year. The budget made no provision for social security, passing the whole problem to the legislature. At the present writing (February) it appears that old age benefit legislation will be passed providing for the state to put up half and the counties half of the funds to match the federal grants; that a tax on intangibles at low rates will supersede the general property tax applicable to intangibles since 1868; that liquor stores will be legalized under county local option vote, with some state control of purchasing and pricing; that the three per cent retail sales tax will be amended to exempt nine or ten basic food commodities; that automobile license plates will be further reduced in cost; that some feeble gestures will be made toward further restriction of working hours (the federal child labor amendment

having been already defeated in this session); and that state employees, including all public school teachers, will be granted a ten per cent increase in salaries.

A recent decision of the United States Supreme Court ruled on an act passed by the legislature in 1933 which may be significant in relation to property rights. The act provides that if a mortgagee buys property at a fore-closure sale and later sues for a deficiency judgment, the mortgagor may plead as a defense that the property was fairly worth the amount of the debt or that the amount bid was substantially less than the true value of the property. If the mortgagor can prove his contention he may defeat the deficiency judgment in whole or in part. In a decision handed down February 1, 1937, (*Richmond Mortgage and Loan Corporation v. Wachovia Bank and Trust Co.*) the United States Supreme Court held that this act did not impair the obligations of contracts nor make such a change in the remedy for enforcement as to constitute an impairment.

Duke University. B. U. RATCHFORD.

TENNESSEE

An extra session of the Tennessee State Legislature convened on December 15, passed a social security act within three days, and adjourned having cost the state less than $10,000. This was the first instance in the state's history that a new legislature assembled in extra session prior to its regular session.

Again on January 4, 1937, the legislature met to face a vigorous program of reforms recommended by Governor Browning, including a complete reorganization of the administrative departments of the state; a merit system for the selection of state personnel; a social security act providing full coöperation with the federal program; better administration of the present revenue laws of the state; and new tax legislation to provide funds for expanding functions of the state government.

Two attempts are being made to authorize new forms of county governmental organization; one of these is sponsored by a group of citizens from Knox County and the other by the Volunteer Association of Hamilton County.

Tennessee's tax revenues continue to increase with the return of

prosperity in the state. Collections for 1936 showed an increase over 1935 of $2,870,000.

Education will probably be allotted additional funds for the next two years. The University of Tennessee has requested from the state an annual amount of $925,000, this being more than double its present emergency budget.

The Federal Housing Administration insured almost $8,000,000 in loans to Tennessee home owners from June, 1935, through December 31, 1936. Over 40 per cent of these loans have been for new homes. Building volume promises to expand considerably during the coming year.

An injunction was granted nineteen power companies against Tennessee Valley Authority operations, in a decree December 22 by United States District Judge John Gore, temporarily enjoining the Authority from building new transmission lines and sub-stations not already under way or serving new power customers except in restricted rural areas.

The Tennessee State Planning Commission has exerted some influence in the present legislative session. A few of the more important recent publications of general interest to economists, by the Planning Commission and others, are:

Public Education in Tennessee
State Planning Commission, December, 1936
Social Security for Tennessee
State Planning Commission, December, 1936
A Digest for the Revenue Laws of the State of Tennessee
State Planning Commission, December, 1936
A Study of the Fiscal System of Tennessee by Tipton, R. Snavely
State Planning Commission, September, 1936
Methods of Using State Prison Labor
Taxpayers Association, Research Report No. 26
A Study of The Federal Social Security Plan
Taxpayers Association, Research Report No. 24
County, City and Town Government in Tennesseee
Taxpayers Association, Research Report No. 27
The Operation of Tennessee Tobacco Taxes by C. P. White
Division of Extension, University of Tennessee
State Regulation of Marketing in Tennessee by W. Ross Cunningham
For State Planning Commission

Tennessee Valley Authority. T. L. HOWARD.

VIRGINIA

On December 17, 1936, the General Assembly, at a special session called by the Governor, passed an Unemployment Compensation Act. Except for minor changes, the same bill that was defeated at the regular session earlier in 1936, was passed with only two dissenting votes. In order that the state might save the taxes levied upon employers in 1936 under the federal Social Security Act, an emergency clause was attached to the Act to make it effective at once.

Under the provisions of the Act all employers in Virginia, except those exempted by the federal law, who have employed eight workers for some portion of a day in each of twenty different weeks within either the current or the preceding calendar year are subject to the Act.

Benefits become payable in 1938 and provide after a two weeks' waiting period for 50 per cent of full-time weekly wages, but not in excess of $15.00, for sixteen weeks in each year. The minimum weekly payment is $5.00 or three-fourths of the full-time weekly wage, whichever is the lesser.

Administration is to be under a commission consisting of the Commissioner of Labor as an ex-officio member and two members appointed by the Governor. The Act requires the commission to establish two coördinate divisions: the Employment Service and the Unemployment Compensation Division. The Employment Service is required to establish branches in various parts of the state and to serve not only the workers entitled to unemployment benefits but also any workers seeking employment and all employers seeking workers.

The Act states that in the event the federal Social Security Act is declared unconstitutional the Virginia law "will expire by limitation and thereafter have no force."

University of Virginia. GEORGE T. STARNES.

PERSONNEL NOTES

Willis N. Baer, Assistant Professor of Economics at Stetson University, spent the summer in Europe making a study of economic conditions in Germany and Russia.

John M. Barringer, who received his Master of Science degree at the University of Virginia, has recently been added to the staff of the Department of Business Administration at the Virginia Polytechnic Institute.

Ben Cogburn, instructor in accounting, University of Florida, is on leave of absence for the second semester. He is completing work for his Master's degree at the University of Illinois where he is also doing part-time teaching.

R. C. Cox, who has had charge of the accounting laboratories of the University of North Carolina, has been appointed acting instructor in accounting.

W. C. Davis is serving as instructor in accounting at the University of Florida during the absence of Ben Cogburn.

S. M. Derrick of the University of South Carolina has been consulting with the appropriate committees of the present legislature with a view to creating a non-political commission to administer social security in the state.

J. G. Evans, who has been on leave of absence from the University of North Carolina with the National Resources Board, has had his leave extended for the remainder of the academic year to work with the Resettlement Administration with headquarters in Raleigh.

Charles B. Fisher, Head of the Department of Economics and Business Administration at Stetson University, is in charge of

plans for the establishment of a collegeate school of business administration at this institution.

Frank J. Foster has been appointed instructor in economics in the School of Commerce and Business Administration, University of Alabama.

Roy L. Garis, former Director of Research for the Tennessee State Planning Commission, has returned to his teaching duties at Vanderbilt University, serving now only in an advisory capacity to the Planning Commission. Dr. Garis addressed a dinner meeting of the Society for Stability in Money and Banking in New York City on December 18, 1936, on the topic, "The Rôle of the Country Bank in the Stabilization of Banking."

Wilson Gee of the University of Virginia, in company with J. F. Jackson, General Agricultural Agent of the Central of Georgia Railway, appeared recently before the House Committee on Agriculture in its Hearings on the Bankhead-Jones Farmers' Home Act to present certain modifications recommended by the Committee on Increased Farm Ownership of the Association of Southern Agricultural Workers and to stress the importance of the enactment of the measure.

Marvin Guin, of Iowa State College, has been added to the teaching staff of the Department of Agricultural Economics at Mississippi State College.

Frederick K. Hardy has been appointed Professor of Economics at Elon College.

S. M. Hines, who has had charge of the statistics laboratory of the University of North Carolina, has been appointed to a statistical position in the North Carolina State Department of Agriculture. P. H. Livingston has been appointed to fill the vacancy in the University.

B. B. Holder has been appointed acting instructor in economics at the University of North Carolina.

M. K. Horne, Jr., has been granted a leave of absence from the University of Mississippi to become head of the Department of Statistics and Information of the Mississippi Unemployment Compensation Commission.

E. A. Kincaid, Professor of Finance in the McIntire School of Commerce at the University of Virginia, has been appointed Consulting Economist by the Federal Reserve Bank of Richmond. Dr. Kincaid will continue his work at the University, spending part of his time at the bank.

C. H. Knight of the University of Alabama has been relieved of part of his teaching responsibilities so he can direct (with Professor Morley) the research program of the Alabama Unemployment Compensation Commission.

Charles W. Lewis has joined the faculty of the University of Tennessee as instructor of economics as of September, 1936.

W. Howard Mann has been appointed instructor in accounting in the School of Commerce and Business Administration of the University of Alabama.

R. D. McIntyre, Professor of Marketing and Salesmanship at the University of Kentucky, has been granted leave of absence for the academic year 1937–38 to study at New York University.

Arthur S. Miller has been appointed instructor in industrial and personnel management at North Carolina State College for the last two terms of the academic year. Mr. Miller comes from the Wharton School of Finance of the University of Pennsylvania.

Burton R. Morley of the University of Alabama has been relieved of part of his teaching duties so he can direct (with Professor Knight) the research program of the Alabama Unemployment Compensation Commission.

Henry Oliver, in January, resigned from his position as holder of the Angier B. Duke fellowship at Duke University to accept a position as instructor in economics at the University of Mississippi.

Raymond B. Pinchbeck of the University of Richmond has been appointed Special Representative in Virginia of the Federal Employment Service. He will administer the merit examinations to qualify the personnel of the Virginia Employment Service.

Roswell P. Snead, who received his Master of Science degree at the University of Chicago, has joined the teaching staff of the Department of Business Administration at the Virginia Polytechnic Institute.

John H. Sherman, recently elected President of the University of Tampa, was formerly Professor of Economics at the University of Chattanooga and later Dean and Professor of Economics and Sociology at Lake Forest College. He served as Superintendent of Markets, Weights, and Measures for the federal government during President Wilson's administration.

F. B. Ward, Professor of Economics, has returned to full time work with the University of Tennessee after a leave of absence as forum leader at Chattanooga during the fall quarter.

Robert C. Weems, Assistant Professor of Business Administration at Mississippi State College, was the featured speaker at the annual meeting of the Mississippi Federation of Cooperatives.

Frank J. Welch, Associate Professor of Business Administration at Mississippi State College, has been nominated to head a newly created Department of Economics, which will be established in the fall.

BOOKS RECEIVED

British Corporation Finance, 1775–1850: A Study of Preference Shares. By George Herberton Evans, Jr. Baltimore: Johns Hopkins Press, 1936. Pp. 208. $2.25.

Planning for Tax Economy. By William H. Crow and U. S. Greene. New York: Waldrep-Tilson, 1936. Pp. 1088. $7.50.

Cooperative Life and Business. By Harriet Dunn and Ethel Mabie Falk. New York: Grosset & Dunlap, 1936. Pp. x, 148. $1.00.

Our Natural Resources and Their Conservation. Edited by A. E. Parkins and J. R. Whitaker. New York: John Wiley & Sons, 1936. Pp. xii, 650. $4.00.

Inflation's Timing, and Warning Symptoms of its Explosive Stage. By Donald G. Ferguson and Allen H. Lester. Cambridge: American Institute for Economic Research, 1936. Pp. 64. $1.00.

Man's Worldly Goods: The Study of the Wealth of Nations. By Leo Haberman. New York: Harper & Brothers, 1936. Pp. xii, 349. $2.50.

Leadership in a Free Society: A Study in Human Relations Based on an Analysis of Present-Day Industrial Civilization. By T. N. Whitehead. Cambridge: Harvard University Press, 1936. Pp. xv, 266. $3.00.

Advancing America: The Drama of Transportation and Communication. By Merrill Denison. New York: Dodd, Mead & Co., 1936. Pp. xi, 303. $2.00.

The Economics of Open Price Systems. By Leverett S. Lyon and Victor Abramson. Washington: Brookings Institution, 1936. Pp. xii, 165. $1.25.

The Fundamental Principles of Taxation in the Light of Modern Developments. By Sir Josiah Stamp. London: Macmillan & Co., 1936. Pp. xiii, 220. $4.00.

Central and Local Finance in Germany and England. By Mabel Newcomer. New York: Columbia University Press, 1937. Pp. xi, 381. $3.50.

The Negro as Capitalist: A Study of Banking and Business Among American Negroes. By Abram L. Harris. Philadelphia: American Academy of Political and Social Science, 1936. Pp. xii, 205. $3.00.

Black Laws of Virginia. By June Purcell Guild. Richmond: Whittet & Shepperson, 1936. Pp. 249. $2.00.

The Railway Worker. By G. M. Rountree, *et al.* Toronto: Oxford University Press, 1936. Pp. xx, 364. $3.00.

British Methods of Industrial Peace. By Ducksoo Chang. New York: Columbia University Press, 1936. Pp. 332. $4.25.

Mass-Consumption. By Frederick Purdy. New York: Talisman Press, 1936. Pp. 220. $2.50.

Federal Tax Law With Explanatory Digest: Revenue Act of 1936. January, 1937 Edition. New York: Prentice-Hall, 1937. Pp. 112. $1.00.

Was ist vom Geburtenrückgang zu halten? By August Lösch. Heidenheim (Würtemberg): Verlag Dr. August Lösch, 1932. Two Volumes, paper covers. Pp. 169. RM. 4.40.

A Study of the Fiscal System of Tennessee. By Tipton R. Snavely. Nashville: Tennessee State Planning Commission, 1936. Pp. 54.

Men, Women, and Jobs. By Donald G. Paterson and John G. Darley. Minneapolis: University of Minnesota Press, 1936. Pp. v, 145. $2.00.

Business Cycles and Forecasting. By Elmer C. Bratt. Chicago: Business Publications, 1937. Pp. xiii, 501. $3.50.

Landlord and Tenant on the Cotton Plantation. By T. J. Woofter, Jr. Washington: Works Progress Administration, 1936. Pp. xiv, 288.

The New Channel. By Edward Bryan Hankins. Boston: Christopher Publishing House, 1937. Pp. xi, 135. $1.75.

Wage and Hour Legislation for the South. Southern Policy Papers No. 9. By H. M. Douty. Chapel Hill: University of North Carolina Press, 1937. Pp. 26. 15 cents.

Managing for Profit. By C. E. Knoeppel. New York: McGraw-Hill Book Co., 1937. Pp. xvi, 343. $3.50.

Big Business: Its Growth and Its Place. Edited by Alfred L. Bernheim. New York: Twentieth Century Fund, 1937. Pp. xv, 102. $1.35.

Office Economies. By Eugene J. Benge. New York: Ronald Press Co., 1937. Pp. xii, 151. $2.00.

America's Experience As A Creditor Nation. By John T. Madden, Marcus Nadler, and Harry C. Sauvain. New York: Prentice-Hall, 1937. Pp. xvi, 333. $2.60.

Seasonal Unemployment in the State of Washington. By William S. Hopkins. Seattle: University of Washington, 1936. Pp. vii, 161. 60 cents.

Electricity for Use or for Profit? By Bernhard Ostrolenk. New York: Harper & Brothers, 1936. Pp. x, 211. $2.00.

THE SOUTHERN ECONOMIC ASSOCIATION

Membership dues in the Association are: Annual $3.00, Sustaining $5.00, Contributing $10.00, Institutional, $10.00. Membership fees include $2.00 in payment for a year's subscription to *The Southern Economic Journal* at the special rate granted to members of The Southern Economic Association.

Applications for membership should be addressed to D. Clark Hyde, Secretary-Treasurer, The Southern Economic Association, P. O. Box 1385, University Station, Charlottesville, Virginia.